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New Models for the New Healthcare

Doctors and Canadian Medicare: Improving Accountability and Performance

Gregory P. Marchildon and Michael Sherar

Commentary from Susan Chatwood, John Church, Richard H. Glazier, Tara Kiran, Audrey Laporte, Tom McIntosh, Jack M. Mintz, Lars Nielsen, Lawrence Rosenberg, Rob Skrypnek, Neale Smith, Terrence Sullivan and Arthur Sweetman

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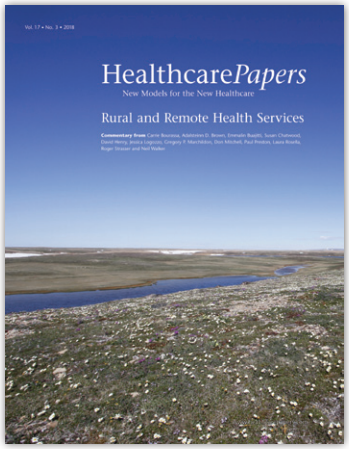

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Fonds

Physician Compensation, Accountability and Performance in Canada: Changing the *Pas de Deux*

INTRODUCTION

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ABSTRACT

Physician bargaining with provincial governments has been a challenge in the provinces of Canada since the origins of medicare, when this bilateral negotiation first began in Saskatchewan and was eventually codified in the Canada Health Act. *In recent years, the emergence of accountability for performance has become a central policy focus in advanced countries to raise the bar on the quality and value of physician services and their effective integration within the broader healthcare system. The challenge has been to create real accountability while balancing growth in physician incomes with fiscal capacity and affordability. This commentary reflects a rich variety of perspectives from our contributing authors. It also lays out a number of challenges and changes that may be required to strengthen the importance of accountability for fair payments within Canadian medicare.*

In this interesting collection of commentaries, we take the intrepid road into physician accountability and performance in Canadian medicare. The lead paper by Marchildon and Sherar (2018) lays out several key challenges. These include the historical cycle of spending compression of health transfers (which included physicians' income) in the early mid-nineties during a period of national and regional fiscal restraint and capping of

incomes, followed by fairly rapid growth back to the original trajectory of spending that preceded the dip in the 1990s. In the history of Canadian medicare, there were two points in time when overall physician incomes declined: the early days following the introduction of medicare (1971–1979) and the fiscal compression of the early nineties (1991–1996) (Grant and Hurley 2013).

In 2017, overall healthcare spending grew by 3.9% to an estimated $242 billion. Physician spending grew slightly less at 3.4%, whereas spending on drugs grew by 4.2%, outpacing physician spending. Direct payments to physicians represented 15.4% of total health spending in 2017 (CIHI 2017). But looking at income alone may miss the direct and powerful influence of physician behaviour on a broad spectrum of expenditures, wielding the tools of service delivery through the stroke of a pen and increasingly through order entry systems creating diagnostic and treatment orders. Marchildon and Sherar (2018) note that the CIHI cost-drivers study of 2011 estimated that physician decisions propelled total healthcare cost growth from 1998 to 2008 to slightly more than half. With the arrival of Choosing Wisely Canada and its emphasis on appropriate care and diagnostic choices, some constructive peer pressure has mounted among clinicians to take value seriously and only order tests and procedures that are necessary and cost-effective.

Although spending growth has increased significantly, overall performance on access to care, efficiency, equity and outcomes places Canadian healthcare in a poor position relative to our international peers according to the 2017 Commonwealth Fund Survey (Commonwealth Fund 2017), as noted by Marchildon and Sherar (2018) and referenced in some detail by Mintz (2018) in his commentary later in this issue.

Challenges of the *Pas de Deux*

Marchildon and Sherar (2018) lay out a series of useful ideas to strengthen accountability for both primary care and specialty care. They also highlight the legacy of the Saskatchewan agreement and the lock-in that often develops between medical associations and provincial political parties, creating an effective duopoly, or what might be characterized as a very challenging *pas de deux*. The *pas de deux* is made up, much like a negotiation, of a predictable sequence of steps: the entrée, the slow adagio, a solo variation for each dancer and then a coda or finish. The sequencing may vary with the provincial-medical association arrangement and circumstance, but the dance is mostly predictable.

Linking quality to performance

Laporte (2018), in her reflection on our theme of physician accountability and performance, makes clear that the challenges in physician bargaining are inextricably bound up with the behaviour of provincial governments and political actors interacting with organized medicine. Canadian physician fee negotiations are largely a political as opposed to a technical and managerial project and often have theatrical dimensions to them (Boyle 2017). Governments and the public have an interest in pursuing accountability for performance, population health, quality and safety, value for money and patient-centredness. These important accountabilities have proved to be hard measures to link directly to physician payments in the dynamic duopoly of doctors and governments negotiating wages together. As Laporte points out, the assumption that governments can easily regulate and innovate systems to manage physician incentives conjures up Adam Smith's "man of systems" (Smith 1795) who may wish to impose his economic system on others, without due attention to their preferences.

The same Adam Smith in *The Wealth of Nations* (1776) characterized physicians as rent seekers, defined as increasing one's share of existing wealth without creating new wealth in the real economy. However, it is hardly fair in this century to suggest that physicians are rent seekers, as the profession does generate important research discoveries, commerce and value in the drug, device and public health marketplace not to mention the productive effect of appropriate treatment on the lives of others.

Control through regulation

Another characteristic of rent-seeking is the capture of regulatory agencies to create an effective monopoly while sometimes creating disadvantages for others. One sees this latter behaviour in some "old school" physicians' attitudes toward allied health professionals whose service might extend or replace the services of the physician at a lower cost. The physician "monopoly" as a group, however, has given birth to constrained access to entry for other professional groups in Canada and elsewhere when new allied professionals and extenders have been introduced. A prime example of this would be the painfully slow pace of growth of nurse practitioners (just over 2,500 in Canada in 2010 [CNA 2012]) despite the definitive Burlington randomized trial by Sackett and colleagues 44 years ago in 1974 (Sackett et al. 1974). The Burlington trial concluded that the quality of care provided by family physicians and nurse practitioners appeared to be similar, using a "quantitative indicator condition" approach. Despite high levels of satisfaction from patients, "the new method of primary care was not financially profitable to doctors because of current restrictions on reimbursement for the nurse-practitioner services" (Spitzer et al. 1974).

The medical resistance to new entrants in the professional ranks has been fought regionally across Canada, from the introduction and exit of nurse anesthetists to the re-entry of anesthesia assistants to the challenges more recently faced by nurse sigmoidoscopists/endoscopists and, more recently, physician assistants (CanadianPA.CA n.d.).

> *The slide in the last 3–4 years may seed some interest in greener pastures, but there is no evidence of meaningful physician exits …*

Impact of geography on wage harmonization

Canada's geography includes the large undefended border with the US, a country that pays higher wages, with quite a different mix of well-paid specialty physicians dominating the smaller number of less well-paid primary care physicians. Canada, with a relatively even split of specialty care and primary care physicians totalling 84,260 in 2018, is verging on negligible out-migration across this border, with 154 doctors leaving Canada in 2016 and 212 returning from abroad, amounting to a net gain (CIHI 2016; CMA 2018). There is currently no "out-migration" surge from Canada, and physician numbers have been growing steadily, outpacing general population growth in the last 10 years (CIHI 2016). But as Mintz (2018) rightly points out, our dollar has fallen dramatically with US tax reform, trade disputes, our commodity-dominant marketplace and the Bank of Canada's approach to interest hikes relative to our neighbour to the south. The slide in the last 3–4 years may seed some interest in greener pastures, but there is no evidence of meaningful physician exits, at least not yet.

Physicians must be paid "reasonable compensation" for all insured services as specified in the *Canada Health Act*. Each of the provinces, on slightly different cycles, enters

into bargaining with provincial/territorial medical associations of different institutional configurations with the objective of getting fair agreements.

Going back to the earlier metaphor, there are at least three challenges in the *pas de deux* of government bargaining with physicians. The first is how to achieve a fair agreement without steadily inflating provincial spending beyond fiscal capacity. The second is how to ensure optimal quality, safety and value for money in the provision of physician services to patients, for which it must be said that the instruments to achieve this are emerging but not fully present as contingent reimbursement and public reporting processes today. The third is to ensure that there is some measure of reason and procedural fairness in how fees are compensated within and among physician practice type.

Quebec's approach to governance

Marchildon and Sherar (2018) highlight the challenges of pinning down physician incomes and performance in the absence of greater accountability for performance and governance practices. Several physician governance issues are well addressed in the commentary by Rosenberg (2018) from Montreal. Quebec has been the leader in regional integration dating back to the Castonguay–Nepveu report, which was codified in law in 1970. Many regional versions have been tried in Quebec and elsewhere in Canada. The current reform in Quebec abolished regional health authorities and instead created integrated hospital and local health and social service delivery networks responsible for population health within defined geographies. Rosenberg makes the case that modern care requires both the "solution shop" model of diagnosing and characterizing the problem and the second step in the process, which is the value-added work of doing an intervention effectively, affordably and conveniently. He argues that hospital solution shops need to be paid on a fee-for-service (FFS) basis and value-added activities should be paid routinely at a fixed price as they can largely guarantee their outcomes. He further suggests that payment structures should be reformed to reflect these two quite different types of work and consequently that they should be paid differently. He adds that the dominant payment structures (largely FFS) create a situation where the same service may be reimbursed differently depending on which specialist is billing.

Quebec has both a specialist negotiation and a primary care physician negotiation. Rosenberg notes that primary care practices in Quebec enter a contractual relationship with the ministry. The intent of Quebec's legislation Bill 10 has been to expand the role of family medicine in Quebec, with the regional authorities providing allied health professionals to family medicine groups to further integrate patient care and extend their capacity for different care trajectories. With Quebec intending to introduce an activity-based funding model for the delivery system, Rosenberg suggests that surgeons, who do different things differently, should be on salary, with a bundled payment for services that includes the physician salary, and should be paid through the hospital.

The Promise of Accountable Primary Care

Glazier and Kiran (2018) take on the challenge of primary care and system change. They agree that physicians display little accountability for managing system resources and that their decisions drive costs. They point out that their real accountability is to the patients for whom they provide care. Accountability to individual patients is certainly central to improving population

health. They also point out, however, that not every patient has a primary care doctor, making it hard to align efforts, particularly with walk-in clinics and emergency rooms acting as the first stop for some hard-to-reach patients. They support a "tight rostering" model, which ensures total population coverage. They note that to ensure that patients are well informed, a single electronic health record should be accessible to patients and providers, bearing in mind that Ontario MD lists a dozen different certified EMR systems. Glazier and Kiran advocate sensible options to advance the role of health quality agencies and governments to ensure that primary care practice-level data are readily available and used to generate improvement – one form of accountability. They also agree on the need for physician autonomy but accept that some formal accountability at the physician group should be established with local health authorities, ministries and quality improvement organizations. Although some quality reporting for primary care is getting under way in several provinces, they argue that a bigger effort is required to spread and scale the reporting, which would almost certainly go a long way to raising physician and public accountability for quality of care.

Experience in Alberta

The Church, Skrypnek and Smith commentary (2018) also focuses on primary care reform to improve accountability. Alberta has long wished to shift away from FFS practices, with the promise of some greater efficiencies in primary care. Despite strong efforts dating back to 2003, Alberta spends more on family medicine than the Canadian average and has the fewest numbers of primary care doctors on alternate payment models. The earliest efforts to build primary care networks (PCNs) in Alberta began some years ago. PCNs submit three-year business plans to the government and work to review their progress with the provincial government. In 2014, Alberta introduced a primary care approach with the objective of ensuring that all Albertans should be attached to a primary care home with a focus on disease prevention. The current PCN committee is trying to advance a blended capitation model for family physicians, presumably to reduce dependence on FFS.

A good fraction of the Alberta PCNs have working patient panels. After-hours care remains an issue, as in other provinces, with approximately 50% of PCNs providing after hours coverage. A project called AIM Alberta is working to improve access management and improvement methods. Although few physicians have converted to alternate payment mechanisms, the push with PCNs does seem to be yielding better comparative performance in some areas, more integrated accountability and continuity of care with greater penetration of physicians in outlying areas.

McIntosh's (2018) commentary follows directly on the theme of trying to implicate Alberta physicians in the 2016 agreement to generate greater peer review and accountability mechanisms, including linking certain benefits and compensation increases to performance on other cost-saving measures. It remains unclear if the 2018 agreement will succeed in achieving the $500M targeted for savings in the earlier agreement. Although the optimism with which McIntosh discusses the agreement is laudable, it is still unclear what the outcomes will be in the current environment, where physicians have agreed to freeze fees. But if there are no restrictions on utilization growth, it will be hard to hold the pay freeze in place in a province where physician fees have grown at 9% until this last year. Price and quantity of fees (utilization) matter in the reimbursement discussion (Lomas et al. 1989).

> *There was a time when Ontario flirted with comprehensive health organizations in the north …*

Will current reforms really work?

In his commentary, Mintz (2018) questions the wisdom of conventional primary care reforms, suggesting that more integrated structures be considered, including hospitals, clinics, primary care, home care and long-term health services – a kind of comprehensive health organization under one organizational roof (as is evolving steadily in Quebec) that would compete for patients. These structures would compete for resources, being rewarded by governments not just for enrolment but also for the quality of care provided. Failing organizations that attract fewer patients would be subject to takeover and replacement of leadership by governments, much like the Ontario institution of installing a "supervisor" to get back on the organizational rails. Mintz's integration notion is appealing, although it is a little at odds with the recent "elimination" of regional structures in Alberta, Saskatchewan and Nova Scotia. Moreover, in some of the far-flung parts of the country, little real competition is possible. There was a time when Ontario flirted with comprehensive health organizations in the north, which was documented in a series of papers that appeared in the second edition of *Healthcare Papers* (Leatt et al. 2000), but they were not designed for real competition, given the geography.

Challenges in remote areas

In her commentary, Chatwood (2018) underlines the challenging realities of recruiting and keeping physicians in a remote area of Canada, the Northwest Territories (NWT). NWT, with a 52% Indigenous population, faces significant challenges, with the population spread out over 33 communities, 17 of which have road access. The region is just completing a reform where eight former health authorities have amalgamated into a single territorial authority. Physician payment schemes in NWT were moved from FFS to salary in 2000 – a wise measure to ensure greater retention. The territorial medical association ensures that members have benefits such as parental leave, extended health coverage, CME and CMPA reimbursement, vacation, leave, retention bonuses and a pension plan. The NWT government has made a commitment to reconciliation, and this includes the greater use of traditional health and practices together with Western medicine. The region faces significant equity challenges and elusive responsibility for the health services provided by federal and provincial/territorial governments and those provided by Indigenous communities and their governments. Chatwood is optimistic that the current tripartite approach, if grounded in reconciliation, can help support the health services base for Indigenous communities and physician leaders.

Increasing Transparency on Earnings and Revenues

The final paper in the collection is an important and distinct contribution from Nielson and Sweetman (2018) focused on the changes in physician income associated with physicians who have incorporated and take income as Canadian-controlled private corporations (CCPCs). This thoughtful study indicates that physicians, like most other workers, respond to incentives. The authors point out that the challenges to improve physician integration into the governance structure of health services delivery are not small. The appetite of provincial governments to drive in this direction has been weak to the point noted in several of our commentaries that it is quite

challenging to tell what physicians' take-home income looks like. The level of secrecy on physician incomes is gradually relaxing but inconsistently across the country. Ontario's Court of Appeal recently made clear that the disclosure of the highest billing physicians in Ontario is justifiable, potentially opening the door to full disclosure of income subject to the view of the current government and any possible further actions (Boyle 2018). Other provinces, including New Brunswick, British Columbia, Manitoba and Prince Edward Island, either release information on payments to doctors from the public purse or are considering doing so. It is perhaps noteworthy that the US began public disclosure of Medicare payments to doctors in 2014.

Nielson and Sweetman assembled the national data (less the territories) from the long-form census (1996, 2001 and 2006) and the National Household Survey (NHS) in 2011. They illustrate that physicians incorporate as CCPCs across Canada and have generated conservative estimates of the 4–5% revenues associated with incorporation. Their paper also illustrates the rapid growth of CCPC adoption among physicians over the last few years. On average, mean personal income tax savings for incorporated physicians are 4–5%. The average incorporated GP with a family income of $272K can realize an annual retained earnings of at least $10K. CCPCs favour married physicians with spouses or adult children. Of course, tax savings are largest for higher-income physicians. They also note that physicians who are paid a salary from their employer cannot in general benefit from a CCPC, an area of potential liability currently for both physicians and employers.

"All must deal with the real limits of government spending in a collective fashion …

Considerations to Overcome the Common Property Challenge and Improve Accountability

Unlike most private sector budgets, physician service budgets are determined by politicians, not by market procedures. This reality was characterized as analogous to a "common property problem" by Hurley and colleagues some time ago (Hurley et al. 1997). Because the physician expenditure budget is a shared asset with provincial government and with physicians, both parties and the tax-paying public have skin in the game. All must deal with the real limits of government spending in a collective fashion that allows for an affordable budget consistent with fiscal capacity and that, at the same time, provides fair and reasonable compensation among the different practice groups represented by their association. Income discrepancies between proceduralists and the cognate professionals remain dramatic and invite a serious re-look at resource-based relative value fee scaling with fair economic value and distributive justice in mind. A quick glance at the Ontario data yields a dramatic contrast (Henry et al. 2012).

Ontario developed a robust resource-based relative value schedule approach to establish fair fee settings via a special commission chaired by John Wade, former dean of medicine in Manitoba. The commission started in 1997 and produced its full report in 2002 (RBRVS 2002). It took several years to deliver recommendations, and, ultimately, they were largely ignored. Perhaps the spirit of the recommendations was entertained, but the general response from organized medicine at the time was not compelling.

Ironically, CMS in the US (Centers for Medicare and Medicaid Services) has routinely used a resource-based relative value scale since 1992 to deal with reimbursement. It is not without controversy itself, particularly in the relatively lower payments afforded to primary care doctors as well as the role of the AMA (Poses 2008)

in recommending updates to the scale. Is there any appetite to revisit relative value in Canada with real attention to the health economic value of procedures? There are certainly enormous changes in technology affecting treatments and their value; might we consider new tables/entities/processes to hammer out some of the value distortions that continuously evolve in fee structures? Can we not address these vexatious issues with skilled professional health executive leaders working with direction from the government and organized medicine, working toward a common objective on relative value fee pricing? Some assert that physicians having a genuine measure of accountability in the place where they work would underpin better physician integration and clinical governance (Dobrow et al. 2008). As Mintz (2018) has fairly said in his commentary, it is not physicians who create the challenge, but greater physician accountability to patients and to the organizations where physicians work is possible.

We can either retool our institutional arrangements to ensure a more sophistical and continuous professionally led negotiation between health sector leaders representing provincial jurisdictions and their medical associations within an articulated fiscal framework, managed growth targets and relative value in mind or face a continuous, vexatious process that may not serve the interests of the profession or the publics represented by our governments.

A final consideration in linking physician payment and performance may be through statute and regulation (Sullivan and Brown 2014). Ontario's *Excellent Care for All Act* (2010) has given birth to an important link between quality measurement and improvement, payment and the public reporting of quality performance. In the initial steps, hospital chief executives (not all of whom are doctors) have been held to account for targeted improvements in quality. These activities are captured and reported through Health Quality Ontario (HQO) through the quality improvement program (QIP), and hospital chief executives, or chief executives with their senior management, share modest reimbursement risk according to how well they perform on quality and safety targets, which are posted publicly and accessible on public hospital and HQO websites. A key issue here is that the risk is modest but tangible and may not require new investments to create modest performance-based risk. To the extent that this practice can be extended to legal entities in primary care, specialty and group practices, home and long-term care and other health sector entities with legal personality, progress is possible. Ontario has the levers to accelerate comparative quality reporting to occur among physician practices and set a standard for doing it with a public measure of accountability.

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INVITED ESSAY
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INVITED ESSAY

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ABSTRACT

Physician compensation has been a rapidly growing segment of healthcare costs in Canada since the late 1990s. In comparative terms, Canadian physicians are now well compensated compared to physicians in other high-income countries. This has caused provincial governments to begin constraining physician remuneration. However, physician payment should be examined in a larger governance context, including the potentially changing role of physicians, as provincial governments try to improve quality, increase coordination and improve overall health system performance. Although limited progress has been made through primary care reforms in a few jurisdictions, substantive improvement has been hampered by a misalignment between the policy goals and intentions of provincial governments and existing governance and accountability structures. This creates an environment in which both

administrators and physicians feel they have limited input or control, seeding an adversarial rather than a collaborative relationship. Effective reform will require addressing governance and accountability at the same time as physician payment.

The last two decades have witnessed a remarkable growth in spending on healthcare in Canada. This is despite the fiscal crisis that began in 2008 that slowed the rate of growth of the Canadian economy and dampened government revenue growth. As a consequence, the federal government and most provincial governments are facing larger public deficits.

Over the past 20 years, except in the very last few years, when the growth in prescription drug spending picked up, physician services have been the fastest-growing sector in healthcare (CIHI 2017a). This increase in physician spending was not just a natural result of governments playing catch-up after underinvesting in physician services in the early to mid-1990s, which led to long wait times for elective surgery and specialist referrals as well as access problems for primary care. It was the result of an almost unprecedented gain in physician earnings, well above gains secured by professionals and workers in both the health and non-health sectors of the economy.

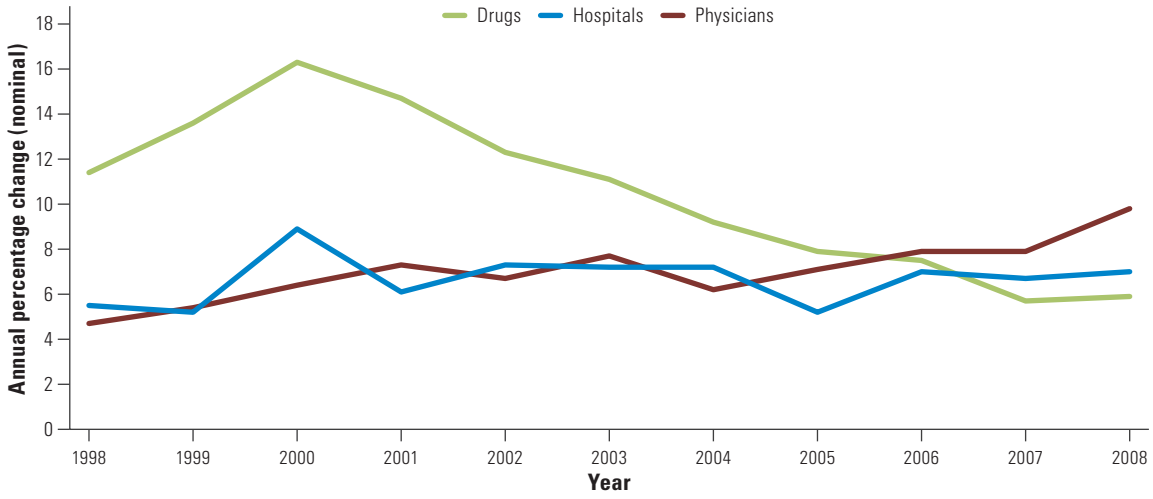
In a Canadian Institute for Health Information (CIHI) study of cost drivers between 1998 and 2008 – a buoyant decade of economic expansion in Canada accompanied by a rapid expansion in government health spending – physician spending grew by 6.8% per year on average (CIHI 2011). Figure 1 indicates the trends in public health expenditure by the three largest expenditure categories: hospitals, physicians and drugs.

According to the CIHI (2011) study on cost drivers, well over half (53%) of this increase was because of the growth in physician compensation. The remainder of the increase was attributed to utilization per capita (22%), population growth (15%) and population aging (9%).

One of the reasons that physician remuneration has grown so rapidly since 1998 was a product of the elimination of provincial caps on remuneration in the early to mid-1990s. These fixed global budgets were the main way provincial governments were able to control increases in utilization rates, which had grown at an unprecedented rate in the 1980s. The removal of caps facilitated an unprecedented gain in physician incomes, with the average doctor earning 30% more than in the previous decade (Grant and Hurley 2013).

Given this, it is hardly surprising that provincial and territorial (P/T) governments have been trying to contain the cost of physician remuneration in recent years. There have been sporadic flare-ups between P/T governments and P/T medical associations on the issue of remuneration. One of the longest-standing struggles occurred in Ontario. Doctors there have been without an agreement with the Ontario government since 2014. When the government attempted to reintroduce a fixed global budget on physician spending, the doctors refused. Initially, the leadership of the Ontario Medical Association (OMA) accepted a revised version of a cap-based formula based on population growth but softened with provisions for population aging and continued growth in physician supply. However, this tentative agreement was turned down by the membership, and new OMA leadership was elected. In June 2017, both parties agreed to a process of binding arbitration in the event that, first, negotiations and, second, mediation fail. As of the date of writing, no agreement has been reached between the OMA and the Ontario Ministry of Health and Long-Term Care.

Figure 1. Growth rates in public health expenditure, by category



Source: CIHI 2017a.

If governments do not want a re-emergence of the problems of the early to mid-1990s, including physician flight to the US and increasing wait times, then they may want to avoid reintroducing simple caps on physician spending, an approach that could lead to a deterioration in the quality and responsiveness of services. Physician services are at the very centre of Canadian medicare, and the discussion should instead focus on obtaining better services and accountability for the money currently expended. This is particularly true for primary care, the majority of which is delivered and coordinated by general practitioners/family medicine doctors (GPs)[1] in Canada. Although it would be reckless to place the blame solely at the feet of physicians of any specialty, the once-sterling reputation of the Canadian medicare system has been increasingly tarnished. The Commonwealth Fund recently ranked Canada ninth out of 11 in an international comparison weighing care processes, access, efficiency, equity and outcomes (Schneider et al. 2017). Few would question that there is substantial room for improvement in Canada, but this requires attention to (and cooperation from) all actors in the healthcare system.

Primary care reform has accelerated in the country during the past 10–15 years. These reforms, which have largely focused on changing payment incentives and encouraging more interprofessional care, have been hampered by a lack of alignment with governance and accountability structures. Provincial and regional health authorities do not have an accountability relationship between primary care organizations and physicians, making it difficult to offer a coordinated continuum of services, implement electronic health records and improve quality of care and patient flow. In other words, we must get beyond the issues of the amount and form of physician payment to more fundamental questions of governance, accountability and service expectations and performance.

Income of Canadian Doctors Compared to Other Doctors in OECD Countries

How do Canadian physicians compare to doctors in other high-income countries? Unfortunately, limited cross-jurisdictional data are available, and those that are available are of low quality in terms of comparability. In 2008, the Organisation of Economic Co-operation and Development (OECD)

published a study comparing physician remuneration across a handful of OECD countries in which at least some comparable data (in purchase power parity US$) were available (OECD 2008). Based on remuneration as calculated for 2004, Canadian specialists were earning, on average, $159,000, an amount that was more, for example, than specialists were earning in the UK ($153,000) and France ($144,000) but substantially less than specialists were earning in the US ($236,000) and the Netherlands ($290,000). Canadian GPs were netting an average of $108,000 at that time, above GP remuneration in France ($106,000) and Finland ($84,000) but below GP income in the US ($146,000), the UK ($121,000) and the Netherlands ($120,000).

This OECD (2008) report outlined the numerous limitations of these data, and OECD working groups have been attempting to improve the comparability of data ever since. Table 1 reflects the last public release of OECD physician remuneration data but does not include the US. These data also suffer from many other limitations (OECD 2013, 2017). However, using these data as a very rough guide, we can see that Canadian doctors are among the more highly remunerated among the OECD countries for which data are available. Moreover, the growth in remuneration, especially for specialists, is among the very highest in these OECD countries (OECD 2017).

This conclusion is buttressed by more recent OECD data comparing physician income to average income ratios within selected high-income countries (for both GPs and specialists, there are no OECD data for the US). As can be seen in Figure 2, only self-employed GPs in the UK earn more relative to the average in their country than Canadian GPs. The results for specialists can be seen in Figure 3. Again, Canadian doctors come out at the very high end of a spectrum of OECD countries. In 2014, specialists in Canada earned just over 4.5 times as much as the average income in the country, a ratio that was 2.5 in the 1950s before medicare was introduced nationally (Grant and Hurley 2013).

This demonstrates the positive impact of the introduction of universal medical care coverage on the incomes of doctors (Duffin 2011). In Belgium, where physician incomes – particularly those of specialists – are also elevated, the compromise reached between doctors and the state following the 23-day doctors' strike in Saskatchewan preserved the self-contracting status of doctors and set a precedent for direct bargaining of remuneration between organized medicine and the government (Marchildon and Schrijvers 2011).

Physician Remuneration in Canada

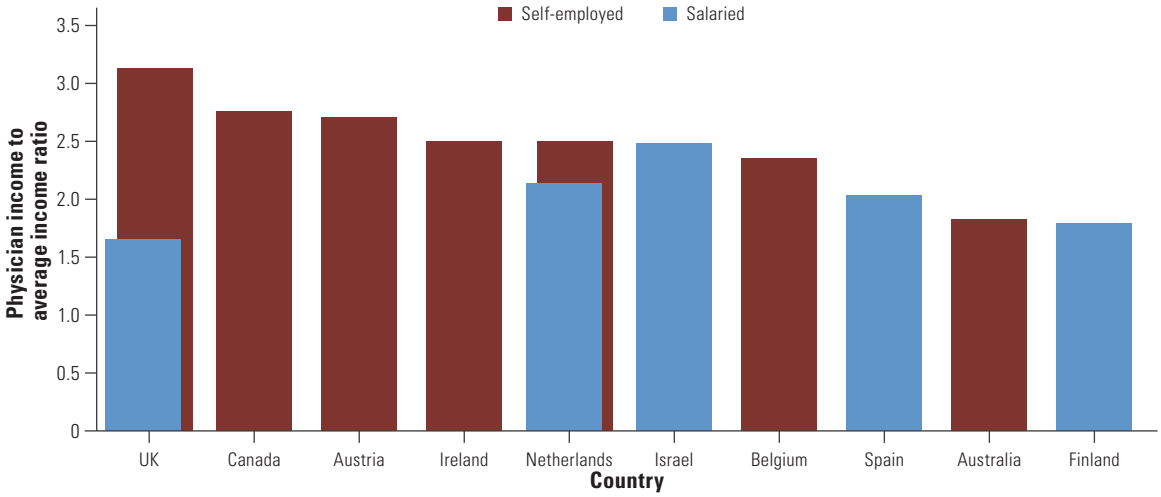
Within Canada, there is considerable variation among provinces (the three territories are not compared to the provinces because of the special arrangements made for physician compensation in those jurisdictions). In every province except Ontario, where almost 56% of remuneration received by GPs was in an alternative form to fee for service (FFS) as of 2015–2016, the majority of primary care physicians are paid through FFS. Moreover, because alternative payments must be competitive with FFS payment, we can use average FFS payments as a basis to compare GP remuneration throughout the country. As shown in Figure 4, GPs in the three prairie provinces, especially Alberta and Manitoba, earn more, whether calculated on gross or net payment, than their counterparts in other provinces. Net payments are calculated using self-reported estimates collected in the National Physician Survey (NPS). The NPS had a response rate of only 16%, and data on estimated overhead expenses were only collected in 2010, so it is important that the net payment results be used with extreme caution and only in conjunction with data on gross payment.

Table 1. GP and specialist remuneration in 2014 and growth rates, selected OECD countries

Country	GP average income, 2014, $US PPP (000s)	Average annual GP income growth rate, 2005–2014, nominal %	Specialist average income, 2014, $US PPP (000s)	Average annual specialist income growth rate 2005–2014, nominal %
Netherlands	141	1.9	242	1.7
Canada	139	2.5	229	3.5
UK	146/77*	–0.1	163*	0.8
Belgium	125	4.1	323	2.1
Germany	–	–	172*	1.3
Australia	98	3.9	208	2.4
France	106	2.1	99*	3.4
Finland	80*	2.3	116*	3.5

GP = general practitioner; OECD = Organisation for Economic Co-operation and Development; PPP = purchasing power parity.
*Salary rather than self-employed. Data limitations likely result in underestimations for both GPs and specialists in France (overtime and bonuses excluded and based on net income only), specialists in the UK and Germany (physicians in training included) and GPs in Australia, Belgium and the Netherlands (part-time doctors included). At the same time, the remuneration for Belgian GPs is likely overestimated due to the inclusion of practice expenses. Source: OECD 2017.

Figure 2. GP income to average income ratio, 2014, selected OECD countries

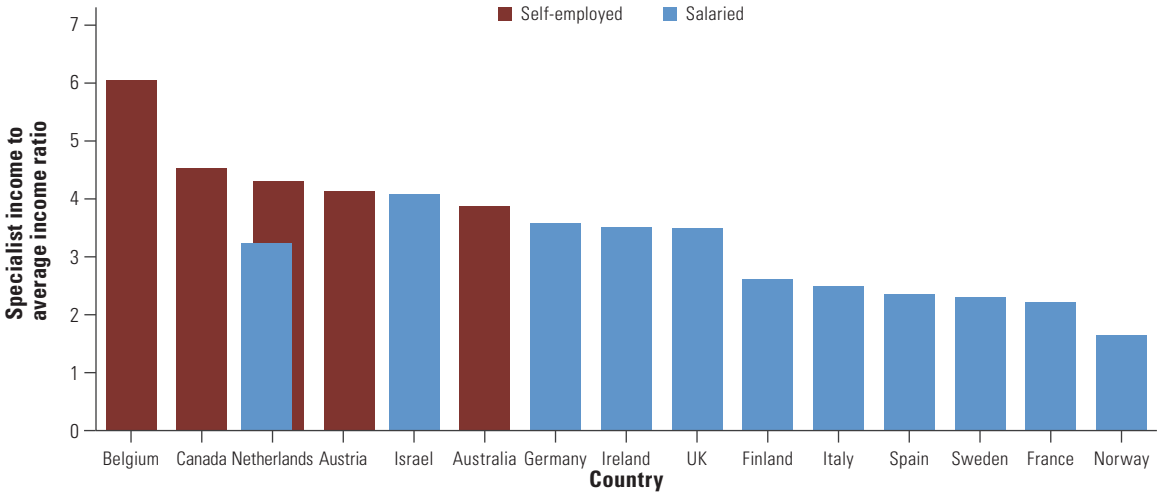


GP = general practitioner; OECD = Organisation for Economic Co-operation and Development. Source: CIHI 2017b.

What is surprising is the extent to which GPs in Prince Edward Island, New Brunswick and Newfoundland and Labrador receive, on average, higher payments than GPs in wealthier provinces, such as British Columbia and Ontario – a testament to the interprovincial competition for physicians and the need for any provincial government to offer rates of compensation that are competitive with other provinces. When it comes time for provincial ministries of health to negotiate with their respective provincial medical association, this competitive fact of life can put enormous pressure on those governments with less revenue capacity.

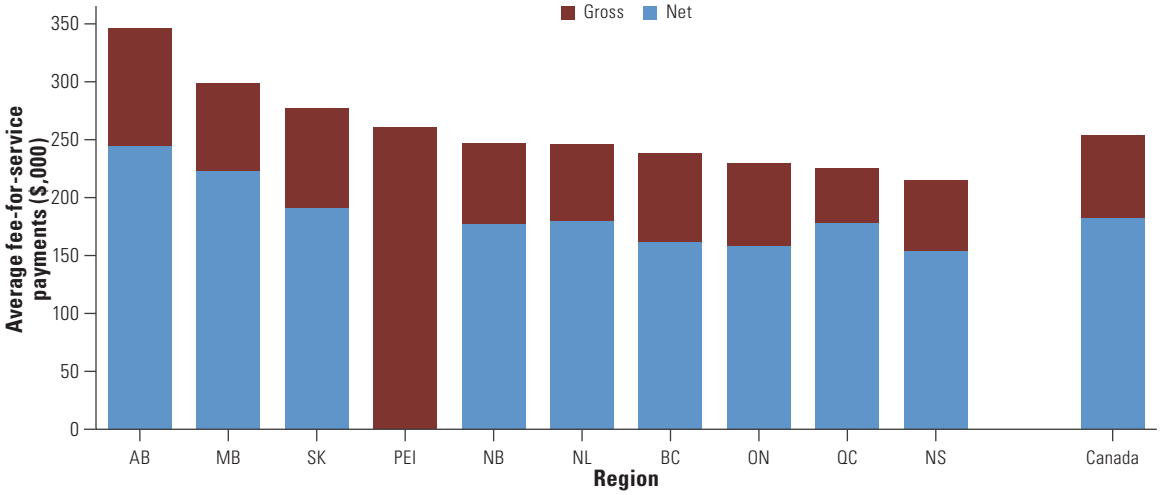
GPs generally work in the community providing primary care services. Specialists provide secondary and tertiary care services and earn more than GPs. As illustrated in Figures 5 and 6, surgical specialists (e.g., urologists, obstetricians/gynecologists, orthopedic surgeons and cardiovascular surgeons) earn more than medical specialists (e.g., psychiatrists, internists, pediatricians and dermatologists).

Figure 3. Specialist income to average income ratio, 2014, selected OECD countries



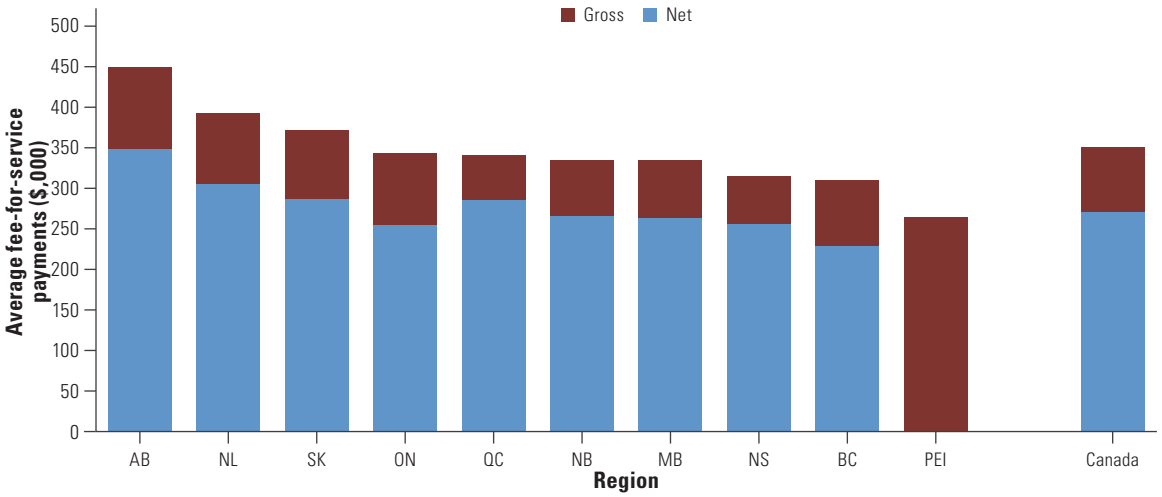
OECD = Organisation for Economic Co-operation and Development.

Figure 4. Average fee-for-service payments (net and gross) for GPs by province, 2015–2016



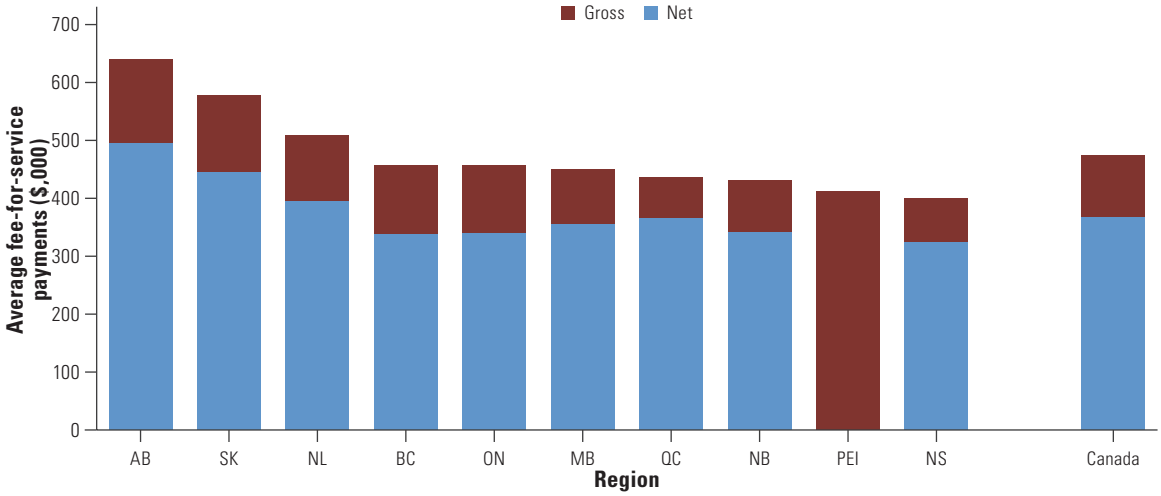
GPs = general practitioners. Note: Net payments are calculated using self-reported estimates collected in the National Physician Survey; use cautiously. PEI data suppressed due to low sample size. Sources: CIHI 2017b and NPS 2010.

Figure 5. Average fee-for-service payment (net and gross) for medical specialists by province, 2015–2016



Note: Net payments are calculated using self-reported estimates collected in the National Physician Survey; use cautiously. PEI data suppressed due to low sample size. Sources: CIHI 2017b and NPS 2010.

Figure 6. Average fee-for-service payments for surgical specialists by province, 2015–2016



Note: Net payments are calculated using self-reported estimates collected in the National Physician Survey; use cautiously. PEI data suppressed due to low sample size. Sources: CIHI 2017b and NPS 2010.

As shown in the Canadian average illustrated in Figures 4 and 5, surgeons make considerably more than other medical specialists and GPs. Alberta's remuneration of GPs and both types of specialists is the highest in the country. The next highest paid specialists are in Saskatchewan and Newfoundland and Labrador. These three provinces share one feature: they are Canada's main oil producers and exporters. With that comes provincial revenues that fluctuate far more than in other provinces in response to global oil prices. In boom times, the governments in these provinces face enormous public sector wage demands in response to a highly inflationary employment market. However, income gains in the public sector are a one-way ratchet, and in periods of low oil prices, the provincial governments in these provinces cannot simply reduce incomes previously negotiated in collective agreements.

Medical specialist incomes in other provinces tend to be closer whether these doctors are located in a wealthier province such as Manitoba or a lower-income province such as New Brunswick. When it comes to surgeons, however, the three Maritime provinces lag behind British Columbia, Ontario, Manitoba and Quebec in terms of specialist remuneration, but the gap is relatively small – a testament again to the pressures to pay competitive rates of remuneration within the Canadian federation. In other words, although the most resource-rich provinces appear to pay a premium in physician remuneration, the remaining provinces offer their specialists remarkably similar rates of remuneration, a price they are required to pay to retain such highly educated and trained personnel.

What can get somewhat lost in these figures is that FFS payments are not only a function of the fee schedule rates but also of the quantity of services provided. Thus, any discussion about the levels of remuneration is incomplete without examining the governance of physician payment with respect to their provision of services. The dual importance of both price and quantity has long been known (Lomas et al. 1989), but efforts at addressing both simultaneously in government-medical association negotiations have been unsuccessful thus far. In particular, the lack of accountability on the value of services provided relative to their fee has been a persistent problem.

Despite an extensive study commissioned by the Ontario government and the Ontario Medical Association (1997–2002) that reassessed the Ontario fee schedule to link price, quantity and value, the commission's recommended approach has never been attempted, much less adopted, in Canada (Born and Laupacis 2011).

Beyond direct compensation, P/T governments also provide additional benefits, which are seldom reported on when discussing public physician expenditures. Consider the Canadian Medical Protective Association (CMPA), the organization that provides legal advice and services to physicians in Canada, and, most importantly, malpractice insurance coverage. All but one province provides reimbursement to physicians for their CMPA dues. The Government of Ontario reimbursed $112 million in 2008, from a total of $136 million charged to physicians (Buist 2009). The CMPA collected $566 million in membership dues in 2016, mostly subsidized by the Canadian taxpayer, and currently holds assets in excess of $3.9 billion (CMPA 2017). Not only is this a public cost that is rarely discussed, but the mere fact of public subsidy for private CMPA costs also raises questions of governance and accountability. In effect, Canadians, through their tax dollars, are helping physicians defend themselves against tort suits for negligence or impropriety launched by individual Canadians. Moreover, the CMPA has been castigated by an Ontario judge for the use of "scorched-earth tactics" to discourage patients from using the legal system against physicians (Clarke 2009).

> *… P/T medical associations are empowered by doctors … to act as the sole bargaining agents on behalf of all physicians …*

Governance, Accountability and Bending the Cost Curve

A distinguishing feature of the Canadian single-payer system is that it creates a duopoly between a P/T government and its corresponding P/T medical association. The P/T government is the sole payer of remuneration for medically necessary physician services, which constitutes the vast majority of physician services in Canada. With the exception of Nunavut, P/T medical associations are empowered by doctors, as self-regulating professionals, to act as the sole bargaining agents on behalf of all physicians within those jurisdictions. This is a deeply embedded governance feature that has not been altered since the introduction of universal medical care coverage in the 1960s.

At the same time, P/T health systems have undergone much change since medicare was implemented. The most important of these was moving from a system in which governments simply paid hospitals and physicians for the medically necessary services they provided to a managed system in which public bodies – known as health authorities – proactively contain costs, coordinate care across numerous health sectors and act as stewards for the health of their respective populations. However, because of the long-established relationship between governments and organized medicine, no legal or financial accountability relationship was created between health authorities and physicians despite the fact that they were responsible for directing and managing the health system within their respective geographical boundaries (Marchildon 2016).

This lack of alignment in terms of governance and accountability poses enormous challenges for these delegated public health authorities, which operate as either regional health authorities or P/T health authorities. When it comes to bending the cost curve, for example, there is no funding and therefore

direct accountability relationship between health authorities and physicians. Despite this, physicians drive costs through the system not only through direct services but also through referrals to other health professionals, diagnostics and laboratory tests and the writing of prescriptions for drug therapies. Given their professional responsibility as gatekeepers in Canada, GPs naturally play a dominant role in this complex web of referrals and prescribing.

GPs: Toward greater responsibility in primary care coordination

Increasingly recognized as the fulcrum on which the rest of the healthcare system pivots, primary care has preoccupied health ministers in numerous OECD countries. An effective system of primary care is now seen as the most essential ingredient to high-performing health systems. One recent review of the international literature revealed the following six criteria as the common elements in primary care reform in recent years (NAO 2018):

1. Interprofessional team-based models of care that integrate physicians with other health professionals.
2. Tight rostering of patients to create accountability and enhance responsibility for patient to ensure better continuity of all care.
3. Access to comprehensive after-hours (24/7) primary care.
4. Investment in and effective use of information and communications technology, especially electronic medical records.
5. Changes in primary care physician remuneration to ensure higher-quality contact time with patients and reinforce accountability for patients.
6. Structural alignment of health system structures to ensure that primary care providers are more effectively integrated into the larger health system.

Contrary to its decades-long stasis in the 1980s and 1990s, the pace of primary care reform has picked up speed in recent years in Canada (Hutchison et al. 2011; Marchildon and Hutchison 2016). However, using these six criteria to evaluate progress in primary care reform yields mixed to poor results in most Canadian jurisdictions.

Interprofessional teams remain the exception rather than the rule in Canada. There are two ways to approach primary care physicians' potential role in coordinating their patients' utilization of secondary, tertiary, long-term and rehabilitative care and other services. One is to reduce the responsibility of primary care physicians in favour of other professionals, perhaps nurses, social workers or professional patient navigators, who would then be made responsible and accountable for patient access to services beyond primary care. This might be possible for broad-based interprofessional primary care teams located in more urban centres. However, even in the larger and most multidisciplinary primary care teams, such as the Family Health Teams in Ontario, most patients are assigned to a GP whom they see as their primary provider – in effect, they bear the responsibility of coordinating their care within the multidisciplinary practice.

The second approach is to assign greater formal responsibility to GPs to coordinate the full range of health needs of their patients both within broader-based primary care practices as well as organizations and providers providing a range of health services beyond primary care. The policy issue is whether GPs are willing and able to coordinate the care of their patients beyond referrals involving specialists and diagnostic testing. This approach would require them to coordinate care for patients more broadly involving home care, long-term care and rehabilitative care, an approach that is

similar to what is being implemented in the Great Manchester experiment in delegation by the National Health Service in England (GMCA-NHS 2016).

Although patient rostering is emerging as a norm for a number of primary care practices in Ontario, Alberta and Nova Scotia, rostering of any type – much less tight rostering, in which there is a strict accountability relationship created between provider and patient to improve the continuity and quality of services as well as contain costs by discouraging the use of hospital emergency departments and walk-in clinics – is hardly known in the rest of Canada. Despite setting a target of having full 24/7 primary care coverage in Canada by 2012 after the 2004 First Ministers Accord (Canada 2004), most Canadians are still forced to go to hospital emergency departments or walk-in clinics for their primary care needs after hours. Only the Northwest Territories even comes close to a fully functional electronic medical record that can be regularly used and accessed by both primary care providers and patients. As can be seen in Figure 7, only Ontario has broken the 50% barrier in terms of replacing FFS remuneration with alternative payment systems such as capitation.

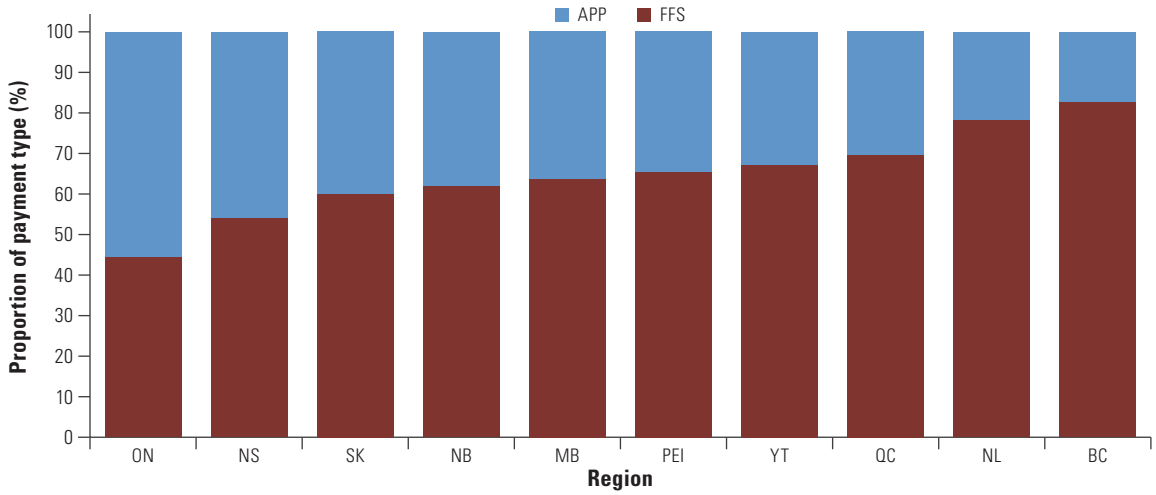
Finally, there is a misalignment of health system accountability in almost all jurisdictions. Health authorities in all 10 provinces are responsible for managing health systems for provincial or sub-provincial (i.e., regional) populations, including the critical primary care fulcrum, yet they have no accountability relationship with primary care physicians (Marchildon 2016).

Specialists: Accountability to patients and health system managers

Hospital-based specialists – especially the surgical specialties – work in hospitals that are managed by health authorities or, as is the case throughout Ontario, independent hospitals. However, as most specialists are independent contractors working on FFS, their remuneration is set in fee schedules negotiated on their behalf by provincial medical associations and provincial governments. Except for a minority of physicians who are hired directly by these institutions, these specialists act with little, if any, oversight from the regional authority or hospital they work within.

The disconnect in this governance structure leaves health system managers with a particularly shallow toolkit for engaging with physicians.

Figure 7. Percentage APP relative to FFS by province, 2015–2016



APP = alternative payment plan; FFS = fee for service.

Both regional health authorities and independent hospitals receive funding from the provincial government and are given direction in the form of general and specific outcomes they are expected to achieve in terms of their service area's health outcomes. However, these same managers are unable to set the direction for the specialists within their hospitals. The only real tool at their disposal is the physician's hospital credentialing. Given the severity of revoking those privileges (and the considerable legal and reputational damage), it is often a "nuclear option" invoked only in cases of severe or systemic issues. Instead, they are obligated to accept many of the terms and conditions specialists choose to work by, with only additional compensation or financial incentive to attempt any sort of coordination. At the same time, at least some physicians feel frustrated by the lack of input they have in the health system within which they work every day.

The disconnect in governance has consequences over and above the barriers it imposes on strategic planning. It also establishes an adversarial relationship between managers and physicians as well as introduces perverse incentives that cascade throughout hospital-based healthcare. Disputes over operating room time provide one obvious example. Health authorities and independent hospitals are responsible for all ancillary costs of surgery, including maintaining the operating rooms, including constant cleaning, restocking supplies and highly skilled human resource support – indeed, everything but the surgeon. The health system manager is tasked with achieving optimal throughput with the most efficient use of scarce resources, including operating room time. In contrast, the incentive for surgeons is to secure their desired share on behalf of their own patients. As every hospital administrator knows, it is very difficult to balance a finite facility capacity against the demands of a variety of independent actors, and dissatisfaction is often the result. Dissatisfaction and low-volume grumbling can grow into vocal disputes among surgeons (between specialties and within specialties), which can easily spread to hospital staff (such as surgical nurses supporting greater allocation for preferred specialties or individual surgeons) and even to appeals to the general public.

The divergent incentives make it difficult for health system managers to work with surgeons to more effectively manage surgical services. Instead, they are subject to the potential veto of surgeons who resent not having any responsibility for the management of operating time. They are unable to sufficiently guide or plan for wait-list management, which is increasingly becoming a concern for many policy makers and decision-makers, not to mention the patients who continue to wait. Operations research has developed many tools for improved efficiency through reorganization and coordination of resources and workflows, but the autonomous nature of most specialists within a hospital or health authority can tie the hands of health system managers.

Even issues that would be straightforward in other workplaces (or even among other health practitioners in a facility, such as physical or occupational therapists), such as the provision of services during an absence because of maternity leave, illness or vacation, can become a near Sisyphean task with respect to specialists. Attempts to reduce costs and improve efficiency by something as simple as standardizing and signing agreements with a single manufacturer for surgical implements, which the hospital pays for and provides, can be derailed if a minority of surgeons prefer other instruments.

Accountability to patients is vital for all physicians, but the governance structure provides unique variables for specialists.

Access problems for primary care cause increased use of hospital emergency rooms and walk-in clinics, both of which are a type of release valve that at least demand the attention of decision-makers because of their cost.

There is no similar release valve for specialist visits. A patient waiting to see a cardiologist or ophthalmologist must simply accept the wait. Emergency room visits are possible only if the condition worsens to the point of requiring urgent care. Patients will voice their concern to the government, hospital or health authority, but the disconnect in governance means that health system managers lack the ability to change the situation without the constructive engagement of specialists.

Conclusion

The evidence is clear that the growth in physician compensation has far outpaced income growth in other sectors, and it is a trend that continues despite a slower-growing economy and growing pressures on P/T governments to bend the cost curve in healthcare. The upwards stickiness of physician remuneration is further exacerbated by interprovincial competition for scarce physician resources that not only puts pressure on lower-income jurisdictions to negotiate high levels of remuneration but also ensures that when boom times inevitably give way to economic slowdown, P/T governments face even greater pressure from the locked-in fee agreements. This fiscal stress is intensified by the systemic mismatch between governance and accountability.

The question of physician remuneration and cost control in the public interest cannot be separated from the question of governance and accountability. The difficulties we face today in Canada can be traced to the origins of medicare itself. Admittedly, there is no simple payment reform that will magically produce higher quality and more timely care. However, a focused approach on the reform of physician payment with an eye to producing greater accountability between physicians on the one hand and health system payers/administrators and patients on the other can produce the desired outcome over time.

Payments and governance are two crucial pieces to the puzzle of improving accountability and performance in the Canadian healthcare system. They are each necessary, but neither is sufficient on its own to make medicare more effective, responsive and fiscally sustainable. To prioritize one over the other is akin to a patient being forced to give up one vital organ to save another. Both are required to survive, and both require care, attention and maintenance. We cannot avoid dealing with payment and accountability together if we are serious about improving the state of healthcare in Canada and our overall performance relative to other high-income countries. Indeed, new forms of accountability tied to compensation should be the focus of P/T governments when they engage their respective medical associations in the next round of negotiations.

Note

1. In Canada, some GPs have additional training in the specialty of family medicine. This article uses the abbreviation "GPs" for primary care practitioners with and without specialist training in family medicine.

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COMMENTARY

Healthcare*Papers*

Physician Service Costs: Is There Blame to Share Around?

COMMENTARY

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ABSTRACT

The rising portion of national income devoted to healthcare in general and the portion allocated to physician services have been a focus of the health policy literature for some time. Greater recognition should be given to the fact that the observed trends in physician service expenditures are the product of the interaction between physicians and provincial governments. Improving the productivity of healthcare systems in the delivery of high-quality primary care will require moving beyond simple oversight to deeper engagement with physicians as partners in system improvement.

Marchildon and Sherar (2018) provide a very thorough overview of the current state of doctors' incomes and health expenditure internationally and in Canada. Their main concern is the ongoing increase in the share of national income going to physician services, primarily on levels and increases of physicians' incomes. They focus on events over the past 20 years or so, but this theme has been present in the health policy literature since the 1970s.

In the early days of medicare, we were comforted by the fact that our costs were rising

more slowly than those in the US (and although our costs were, in those days, growing faster than those in the UK or Japan, we tended to take that as evidence that those countries were starving their healthcare systems of funds). After a while, though, the tone began to change, and one started to hear remarks to the effect that although it had been expected that health ministries would wrestle doctors to the floor on pay, it was starting to look as if doctors had wrestled the government to the ceiling. Whatever the mechanism, it was quickly taken as given that the source of any unexpected upward cost trend was doctors' incomes. This was easier to accept if we neglect two facts: that all expenditure becomes income for somebody, meaning that simple correlations between incomes and expenditure were not informative about causality, and that the government was also involved in this process.

> *We set up a bilateral monopoly, and that means that all policy consequences flow from a game between two players …*

With the introduction of medicare, we were supposed to have entered a Galbraithian world of countervailing power, with the single payer having a clear edge in power. We set up a bilateral monopoly, and that means that all policy consequences flow from a game between two players, not just one: on one side of the table we have the doctors and on the other the provincial government. Even within this structure, there were unintended consequences, and it is with a subset of those consequences that the Marchildon and Sherar (2018) paper is concerned. Time has revealed that we have not tended to think correctly about the way actors in the system would respond to various incentives. It seems, as Adam Smith warned us, that we cannot simply regard all of those actors as chess pieces to be moved around by the "man of systems" (Smith 1795).

Among the eternals in the literature is the assumption that all that really needs to be done is to take doctors off fee for service and put them on some sort of alternative payment mechanism, and benefits (in the form of more primary care) will rise and costs, at the very least, will be constrained. This was the driving force behind the development of many health maintenance organizations in the US in the 1990s. Yet in Ontario's latest political war with its doctors, we seem not to have heard much about how rapid increases in GP costs were a direct result of the payment system that Ontario introduced (Grant 2015; Gray et al. 2015). And as for productivity, several provincial auditors general have commented recently that provinces have been switching to alternative payment plans without bothering to introduce mechanisms for evaluating how output would be affected (Auditor General of Ontario 2016; Office of the Auditor General of British Columbia 2014). We know much less about what goes on in those doctors' offices than we did when they were being paid on fee for service. There is, however, a certain amount of evidence suggesting that shifting doctors from piece work to something closer to a guaranteed annual income has, at the very least, not increased their productivity (Iversen and Luras 2012).

In the Marchildon and Sherar (2018) paper, our attention is drawn to the similarity of physician incomes across provinces, and we are told that this is a consequence of inter-provincial competition for physicians and the existence of one national market. Presumably, we are not being told that we should look forward to the day when the Supreme Court rules that doctors, like beer, cannot be transported freely from one province to another.

The fact remains, however, that provinces decide on the number of medicare billing numbers they will approve: that is, within a province, the supply curve will be vertical, therefore, standard market mechanisms are limited in their effectiveness.

> *… there is no consideration of the possibility that the problem lies in the rules that are already in place …*

The authors note the need for doctors to use more non-physician labour in their practices. It is perhaps worth noting that dentists make much use of assistants and hygienists and that American GPs started making use of nurse practitioners well before Canadian ones did. Although nurse practitioners are now a familiar part of the Canadian healthcare system, it is still the case that the government tends to decide how many nurse practitioners can be included in a practice rather than leaving the staffing decision to whoever is responsible for managing the practice on the ground. The reason that GPs in Canada were slow to integrate nurse practitioners into their practices is simply because they were, for a very long time, not able to bill medicare for the services that nurse practitioners provided. The health policy literature tends to conclude that we need more micromanagement of physician practices, but there is no consideration of the possibility that the problem lies in the rules that are already in place – medicare billing rules, for example.

According to some methodologies, Canadian university professors are the best paid in the world, but they seem to get a break on demands for cost control, perhaps because there is a presumption that we, as professors, deliver our money's worth (Jaschik 2012). Making cost comparisons in healthcare is, despite its ubiquity, tricky, and drawing conclusions from them is even more so. Obviously, if we really want to talk about whether Canadian doctors are driving costs (again, ignoring the role of government in the bilateral monopoly game), we need to look at some kind of cost per unit of quality-adjusted output measure rather than simply looking at process measures. If it turns out that the output numbers are also unfavourable, then we need to do more than tinker with payment mechanisms.

It is suggested that one way to move would be to assign greater formal responsibility to GPs beyond referrals to specialists and diagnostic tests to coordination of home care, long-term care and rehabilitation services. However, simply assigning responsibility will not work. GPs must also be given authority, in particular, over the funds that would be necessary to pay for these various types of care. A useful model in this regard would be the fund holding system, which at one point was in operation in the UK in the National Health Service. Ultimately, policy makers must decide whether they are going to spend their time looking over doctors' shoulders or whether they are going to treat doctors as partners in providing patient care and, indeed, treating them almost as managing partners who will benefit from improving the productivity of the healthcare system.

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Healthcare Delivery and Physician Accountability in Quebec: A System Ready for Change

COMMENTARY

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ABSTRACT

In hindsight, there have been unintended systemic consequences stemming from the traditional roles physicians have assumed and the structures within which they have been permitted to organize themselves. It is critical that the national discussion take account of this because we must reconcile ourselves to the current reality in which all other allied healthcare professionals are practising at "the top of their licence." Furthermore, the pace of technological change, especially the deciphering of the genome and the digitalization of virtually everything, has engendered a revolution characterized by the democratization of knowledge and technology, so that the point of care will be wherever the patient is. Dysfunctional reimbursement schemes and a lack of accountability are merely symptoms of a system that must change.

The cost of healthcare as a percentage of provincial budgets continues to rise as the population ages, people live longer, multiple comorbidities are epidemic and the cost of drugs and other technologies skyrockets. As well, in their very timely paper, Marchildon and Sherar (2018) clearly demonstrate that physician remuneration has grown rapidly since 1998 as a product of the elimination of provincial caps on remuneration. The question to be asked is whether there has been a commensurate increase in value added to the

system and the population. I would argue it has not. In fact, it has become increasingly evident that Canada's system of universal healthcare has important structural incongruities that must be resolved if we are to address our current challenges. Fundamentally, there has been no legal or financial accountability relationship between health authorities and physicians even though they are now responsible for directing and managing the health system. One interesting, albeit infrequent, exception to this conundrum is when the CEO of a health authority is actually a physician. In this setting, there is a different measure of accountability, and it is noteworthy that, under such circumstances, exceptional performance is realized (Stoller et al. 2016).

One approach that is gaining traction globally is to explore different models of care organization, delivery and governance based on the paradigm of value-based care, characterized by consumer-centricity, timely access, high quality, exceptional experience and population health management. Value is defined as the cost of achieving measurable relevant patient outcomes. Contrast this with our current reality, in which hospitals and doctors do not readily disclose and may not really know the cost of what they do or the outcomes they achieve. The value of the services being offered, therefore, is not measured. Consequently, normal market mechanisms that drive performance, efficiency and consumer-centredness do not exist in our healthcare system.

Today, the focus must be on implementing more coherent services. This means an integrated continuum of care with accountability for the money expended. This challenge was taken up by the Liberal government of Quebec and its health minister in 2015 through the introduction of landmark legislation: Bill 10, an act to modify the organization and governance of the health and social services network, in particular by abolishing the regional agencies; Bill 20, an act to promote access to family medicine and specialized medicine services and to amend various legislative provisions relating to assisted procreation; and Bill 130, an act to amend certain provisions regarding the clinical organization and management of health and social services institutions. The latter is an omnibus bill that included provisions affecting the working conditions of medical specialists in hospitals.

> *These new integrated networks are responsible for population health management within a defined territory …*

Marchildon and Sherar (2018) observed that reforms largely focused on changing payment incentives and encouraging more interprofessional care have been hampered by a lack of alignment with governance and accountability structures because regional health authorities did not have an accountability relationship between primary care organizations and physicians, making it difficult to offer a coordinated continuum of services. Bill 10 was a response to just this issue. It was introduced to address timely access, continuum of care and cost containment. To achieve this, regional health authorities were abolished, and most hospitals were regrouped with existing community health and social services organizations, thereby creating integrated healthcare and social services networks (Centres Intégrés de Santé et de Services Sociaux [CISSS]), some of which were directly affiliated with appropriate universities (Centres Intégrés Universitaires de Santé et de Services Sociaux [CIUSSS]) to continue their teaching and research missions. These new integrated networks are responsible for population health management within a defined territory and are

also mandated to work with and to coordinate care provided by all family medicine groups (Groupes de médecine de familles [GMFs]) within their territory. This relationship extends to providing and paying for allied healthcare professionals who work in these GMFs. In this manner, a coherent continuum of care that includes community, home care, specialty hospital, mental health, rehabilitation and long-term care services has been established and is beginning to function in a highly coordinated way, with clear measurable benefits having already been achieved for users as well as providers.

Although Bill 10 dealt with many system governance matters, it did not address physician accountability, service expectations and performance. This was the purview of Bills 20 and 130. This legislation was designed to more closely align physician working conditions and performance standards with population needs. The resulting firestorm of public invective released by the respective unions, the Fédération des médecins omnipraticiens du Québec (FMOQ; family physicians) and the Fédération des médecins spécialistes du Québec (FMSQ; specialists), forced the government to table many of the provisions, at least until after the upcoming provincial election in October. This physician response and government reaction should not have been surprising as they are indicative of deeper structural incongruities in the Canadian healthcare system, which no one has wanted to address let alone endeavour to fix. Clearly, governance and accountability are intimately tied up with physician payment and reimbursement models in general.

In Quebec, as elsewhere in Canada, most physicians are independent contractors paid by fee for service (FFS), with their tariffs set in fee schedules negotiated on their behalf by the FMOQ and FMSQ. In the FMSQ, constituent specialty associations vie for their portion of the global monetary envelope, so it is possible that the same service can be reimbursed differently depending on which specialist is billing. This method of setting tariffs will engender behaviour (consciously or subconsciously) that could affect how medicine is practised because it is unrelated to patient need or not in keeping with evidence-based standards of care. Another example are incentives that are negotiated as enticements to do work that should otherwise be done. An example of this is an incentive to surgeons to show up on time at 8:00 am to begin their first case on time. It would make more sense to withhold operating room privileges from surgeons who do not show up on time. These are just some of the many contradictions in the system that call into question the soundness of the current reimbursement model.

As Marchildon and Sherar (2018) note with respect to specialists, who are primarily hospital based, the growth in their compensation has far outpaced income growth in other sectors. To date, these physicians have acted with little, if any, oversight from the regional authority or hospital within which they work. In Quebec, it is expected that this unacceptable lack of alignment of governance and accountability should be effectively dealt with once all provisions of Bill 130 are implemented. The PR position of the FMSQ recently backfired as the media and the public have begun to turn on it over the issue of excessive reimbursement rates (Cardinal 2018).

Another interesting anomaly of the FFS model that promises to provoke yet another battleground is the tariffs for in-patient hospital care. For surgeons in Quebec, the fee collected for a surgical procedure includes the surgeon's post-operative care of the patient in hospital and thereafter as an out-patient. With diminishing numbers of specialty residents and inadequate numbers of staff physicians, surgeons are insisting that hospitalists and/or physician extenders be brought in to help provide safe and timely coverage

for in-patients. At this time, Quebec does not recognize hospitalists or physician extenders. However, introducing hospitalists or physician extenders would require an alteration to the reimbursement model, such that there would be a commensurate reduction in a physician's FFS payment. Although this is ostensibly a payment issue, it clearly cannot be separated from governance, professional accountability and responsibility and patient need. So where can we turn for guidance to moving beyond the morass in which we find ourselves?

> *Because the sole payer in Canada is the taxpayers, should they not determine what they are paying for and how they will pay?*

Harvard Business School Professor Clayton Christensen applied his concept of disruptive innovation to healthcare (Christensen et al. 2009) and noted that every viable business model starts with a value proposition – a product or a service that helps consumers do more effectively, affordably and conveniently a job that they've been trying to do. Thus, we must acknowledge that for too long in Canada we have been trying to square the circle by having designed and incrementally tweaked a healthcare (and social services) system that puts providers (doctors) at the centre and leaves patients at the margins. Because the sole payer in Canada is the taxpayers, should they not determine what they are paying for and how they will pay?

Christensen posits that consumers of healthcare generally need one of two jobs done. The first might be summarized as "I need to know what the problem is, what is causing it and what I can do to correct it." The second job would be "Now that I know what needs to be done to fix my problem, I need it to be done effectively, affordably and conveniently." Delivering a value proposition to do the first job requires a solution shop business model; the second job requires a value-adding process (VAP) business model.

The solution shop activities within a hospital are generally those involved in diagnosing patients' problems. Those who collate and interpret the results are schooled in the art of intuitive medicine. In some instances, even the finest cannot definitively diagnose the problem: the best they can do is develop hypotheses, that is, differential diagnoses. In these instances, physicians will test their notion of what the disorder might be by "experimentally" treating patients. If they respond, it verifies the hypothesis. If they do not, physicians initiate treatment for their next best hypothesis, and so on.

The capability to address such problems cannot reside in standardized processes. Rather, it largely resides in the hospital's resources – the intuition, training and experience of the people who practise there and the equipment at their disposal.

VAP activities comprise the other hospital business model. Their value proposition addresses the second of the jobs to be done: to fix problems after a definitive diagnosis has been made, for example, most surgeries. These activities are not unlike those that occur in a university or the kitchen of a restaurant. Partially complete things are brought in one door. The workers pick up a set of tools, follow a series of relatively proven value-adding steps and then ship a more complete product out the other door.

The resources and the essential nature of the processes inherent in the two business models are different. So are their cost structures and accountabilities. Solution shops need to get paid on an FFS basis. Their fees cannot be based on outcomes because many factors beyond the accuracy of diagnosis affect the results. In contrast, VAP businesses should

routinely offer their outputs at a fixed price, and they can largely guarantee their outcomes.

At present, reimbursement schemes typically price both types of hospital services on an FFS basis, with overhead costs spread across them in highly distorted ways. One result is that the value of what hospitals do simply cannot be measured. Hence, governments should acknowledge that hospitals need to deconstruct their activities operationally into the two different business models: solution shops and VAP activities, each funded accordingly.

The reason why this division is such a crucial first step is that there are two different jobs to be done. Only when an organization's resources, processes and costing model are focused around a job to be done in alignment with an appropriate governance and accountability structure can they be integrated in a correct and optimized way that does the job as perfectly as possible.

> *These systemic incongruities are further compounded by the lack of oversight and accountability …*

Quebec hospitals are funded primarily through global budgets, a form of capitation that is inelastic and that assumes a relatively unchanging volume of activity and a fixed case mix. However, Article 1 of the *Canada Health Act* accords patients the right to choose where they seek treatment. Consequently, some institutions suffer a mismatch between funding received and patient volume treated. Moreover, in an effort to ensure adequate physician coverage in all regions of Quebec, the government has regulated how many specialists can practise in any given region (known as the Plans Régionaux d'Effectifs Médicaux [PREM]) and how many may be engaged in any specific institution (known as the patient enrolled model [PEM]). Although this well-intended directive does afford a measure of "geographical accountability" with respect to the provision of care, the policy assumes that (a) patients will remain ostensibly within the region they reside to receive all their medical care and (b) older physicians will retire, making room for younger colleagues. Both assumptions have proven to be false. Thus, some institutions lack a critical mass of certain specialty physicians to cover the growing volume of patients of increasing acuity. This unintended consequence is compounded by the ongoing reduction in the numbers of speciality residents being trained. These systemic incongruities are further compounded by the lack of oversight and accountability that characterize our current governance structure with respect to medical specialists. This inherent dysfunction could be addressed by having money (and PEMs in Quebec) follow the patient, but it is not enough.

The Quebec Ministry of Health and Social Services (MSSS) is about to introduce activity-based funding for surgery that is expected to provide a bundled payment for an episode of care. This is a necessary step that aligns with the VAP model, but the physician cost component is not included. Because different surgeons do things differently, costs for a given procedure can vary greatly, but this will not be addressed in the forthcoming funding model. Moreover, attempts to standardize care and reduce care variation to control costs and improve quality will be difficult in a governance model in which physicians have no accountability – that is, until Bill 130 is fully implemented. When paying for a lavish dinner, one pays the cost of the meal, which includes the salary of the chef, who is not paid separately. The same model should apply for value-adding hospital activities such as operative procedures. This is certainly true because different surgeons have different levels of expertise and different outcomes. There is no

reason patients, that is, taxpayers, should pay the same procedure-based fee if their outcomes vary. Accordingly, physicians engaged in such activities should be salaried and a bundled payment, including the physician salary, should be paid the hospital.

Over 85% of the interaction with the healthcare and social services system occurs out in the community. Can the foregoing arguments be extended to the delivery of primary care?

The accountability of individual primary care physicians to provide certain levels of care has been negotiated between the minister of health and the FMOQ. This is based on the concept of an AMP, that is, activité médicale particulière, which commits primary care physicians to provide at least 12 hours of defined types of care per week, other than the care they would otherwise provide within their own practice. Examples would include time devoted to long-term care residences, the emergency department or obstetrics. In addition, all primary care physicians with less than 10 years of practice must commit to care for a minimum number of patients, determined by the ministry.

Most primary care physicians, though, actually practise in groups, and many such groups are certified by the government as GMFs. In this model, direct public funding is provided by the group to cover specific aspects of operating expenses, such as client enrolment. Thus, private medical practices that elect to become GMFs receive additional funding for operating costs, giving them a dual character with respect to funding. They become "public/private" organizations in which a portion of the medical practice's operating costs is directly funded by the ministry.

The GMF model also provides physicians with additional means of remuneration. Although a large proportion of remuneration continues to be FFS, amounts have been added to enhance working conditions in GMFs. For instance, doctors working in GMFs receive a financial incentive for each registered patient. Around-the-clock phone access is paid at a per diem rate, and the doctor in charge of the GMF receives approximately a fixed weekly stipend.

> *Physicians working in a GMF are jointly responsible for the care of enrolled patients.*

To obtain GMF accreditation, medical practices must contractually commit to extend their hours of operation, make family physicians more available through working in groups, share activities with nurses and improve medical follow-up of patients. Physician members of a GMF must define the mechanisms by which their group practice will divide the tasks and responsibilities to ensure patient management and follow-up. They are strongly encouraged to share their activities with nurses, in particular nurse practitioners. This interprofessional collaboration is facilitated using care protocols and the establishment of collective prescriptions (delegated acts).

Client enrolment is another fundamental element of the GMF model that has changed the provision of individual services. Physicians working in a GMF are jointly responsible for the care of enrolled patients. For family medicine services, priority is given to people who are enrolled. Outside of the GMF's regular hours of operation, enrolled persons who present with urgent conditions are assured of receiving a quick response. This service offer involves working in collaboration with the Info-Santé service (a telephone consultation service) and the 24/7 on-call nurse in the CIUSSS/CISSS home care program and setting up a 24/7 telephone on-call system staffed by the GMF members. Expanding activities to include new digital health

technologies would add significant value, but family physicians are not permitted to seek reimbursement for TeleHealth.

The GMF model introduces a contractual relationship between physicians and the MSSS, represented by the CIUSSS or CISSS. GMFs are organizations based fundamentally on voluntary participation, in which a group of physicians commit to provide a defined range of services to an enrolled clientele, in accordance with required quotas. In exchange for this commitment, as mentioned in the discussion above, the group benefits from added human, material and financial resources. Physician members of a GMF must sign a contract of association that sets out the orientations, the functioning and the responsibilities of each party. The physicians must define the services they offer, particularly with respect to the GMF's days and hours of operation and on-call periods, as well as the support services provided outside the GMF. Once its proposal has been ratified by the MSSS, the GMF's offer of service becomes the basis of a contract. The group signs an agreement with a CISSS or CIUSSS partner that addresses the attachment of nurses and other allied health professionals to the GMF. The professionals assigned to a GMF maintain an employment link with the CIUSSS or CISSS but are under the functional authority of the GMF.

GMFs are accredited for a period of three years, at the end of which they must begin the process of renewing their accreditation. In this renewal process, the GMF's offer of service is verified and potentially adjusted. This process is also an occasion for setting medium-term objectives for the GMFs. In return, GMF expect the contracts signed with the CSSS to bring additional resources. Thus, GMFs sustainability depends on an agreement negotiated between private practices and the MSSS that is regularly re-evaluated. Although this formula provides better accountability for primary care service organizations, the ultimate accountability mechanism for ensuring that agreed obligations are met is the imposition of financial penalties.

The typical primary care physician's practice consists of four categories of care delivery (Christensen et al. 2009): (1) the straightforward diagnosis and treatment of disorders (generally acute ones) that are in the realm of empirical rules-based or precision medicine; (2) ongoing oversight of patients with chronic multi-morbidity; (3) ongoing wellness examinations and disease prevention and (4) preliminary identification of disorders that are in the realm of intuitive medicine – some that might be handled by the primary care physician, but many of which are referred to specialists.

For number 1, nurse practitioners (and other allied health professionals) in independent clinics or retail locations (e.g., pharmacies) should disrupt the empirical/precision medicine portion of a primary care physician's practice. This type of VAP business model can optimize the job to be done within 15 minutes or less and with no waiting. These would be fee-for-outcome rather than FFS businesses.

For number 2, and for coordinating their patients' utilization of secondary, tertiary, long-term care, rehabilitative and other services, Marchildon and Sherar (2018) propose two approaches. One is to reduce the responsibility of primary care physicians in favour of other allied health professionals, who would then be made responsible and accountable for patient access to services beyond primary care. This is in fact one of the positive benefits of the integrated networks created under Bill 10. The second approach is to assign greater formal responsibility to GPs to coordinate the full range of health needs of their patients both within broader-based primary care practices as well as organizations and providers providing a range of health services beyond primary care. As discussed above, Bill 10 has expanded the role of GMFs

in Quebec, and the CISSS or CIUSSS provide allied healthcare professionals to them to further integrate patient care into real trajectories of care that reflect meaningful care continuums.

> *… the training of GPs becomes an important policy issue that remains unaddressed.*

Ongoing wellness examinations (number 3), which include prevention and early detection, are often the portal through which referrals to specialists occur. These exams will remain in the province of GPs, but these physicians can then disrupt the specialist's solution shops (number 4), propelled by technological innovation that enables economical on-site testing and imaging, and online diagnostic road maps that integrate large bodies of research to bring more and more analytic and imaging capabilities to the point of care.

In Quebec, the CIUSSS and CISSS are funded mainly by a form of integrated capitation. This eliminates any desire to give more care than is needed and ostensibly gives providers an incentive to engage in wellness care and preventive services to keep their patients healthy. It also encourages the development of innovative models of care within these integrated provider organizations that have developed lower-cost venues of care and lower-cost caregivers to deliver high-quality cost-effective services – the *raison d'être* of Bill 10.

Given GP's growing responsibility as gatekeepers, one policy issue not addressed by Marchildon and Sherar (2018) is whether GPs can coordinate the care of their patients beyond referrals involving specialists and diagnostic testing. Thus, the training of GPs becomes an important policy issue that remains unaddressed. Post-medical school training for most family physicians in Canada is two years. In Europe, it is three years, and in Israel, it is five years. Should we be doing something different when it comes to the preparation of primary care physicians for future careers in Canada?

No doubt, as indicated by the authors, payments and governance are two crucial pieces to the puzzle of improving accountability and performance in the Canadian healthcare system. The goal, though, must be to bring value to the system. This means that we need to be single-minded about clinical patient outcomes and the costs incurred to achieve them. Thus, accountability and governance are not ends in themselves but are foundational to enable the system to become more consumer-centric and value based. This means that reimbursement models must be rethought to realign all parts of the system to deliver on the promise of value-based care – timely access, exceptional experience, high quality, cost-effectiveness and population health management. Importantly, such models must be informed by the evaluation of the value of work done by physicians to align reimbursement to promote value creation.

In Quebec, this role should fall on l'Institut national d'excellence en santé et en services sociaux (INESSS), an independent organization that reports to the minister of health and social services. Its mission is to promote clinical excellence and the efficient use of resources in the field of health and social services. INESSS assesses, in particular, the clinical advantages and costs of health technologies, medications and interventions used in the fields of healthcare and social services. In addition, INESSS issues recommendations concerning adoption, use and coverage within the public plan of health technologies and services. It also develops clinical practice guidelines to ensure optimal use of health and social service resources. However, INESSS has not undertaken to examine the issue of value creation in

the delivery of healthcare and the urgent need to realign physician reimbursement.

In hindsight, it is evident that there have been unintended systemic consequences stemming from the traditional roles physicians have assumed and the structures within which they have been permitted to organize themselves. It is critical that the national discussion take account of this because we must reconcile ourselves to the current reality in which all other allied healthcare professionals are practising at "the top of their licence." Most important is the recognition that the pace of technological change, especially the deciphering of the genome and the digitalization of virtually everything, has engendered a revolution characterized by the democratization of knowledge and technology, so that the point of care will be wherever the patient is.

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Doctors and Canadian Medicare: Improving System Performance Requires System Change

COMMENTARY

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ABSTRACT

Many of the issues raised and insights provided by Marchildon and Sherar (2018) in their essay on doctors and Canadian medicare are on target. The inadequacy of available data on physician payment, however, calls into question the robustness of some interprovincial comparisons, and when it comes to compensation, comparisons to US physicians would be most relevant. In contrast to their assertion of a steadily increasing growth rate in physician expenditure, a more recent and longer view shows historically low growth in the past few years. Furthermore, the blame assigned to physicians and their medical associations needs to be shared with governments and most of all could be attributed to the lack of system structures and supports

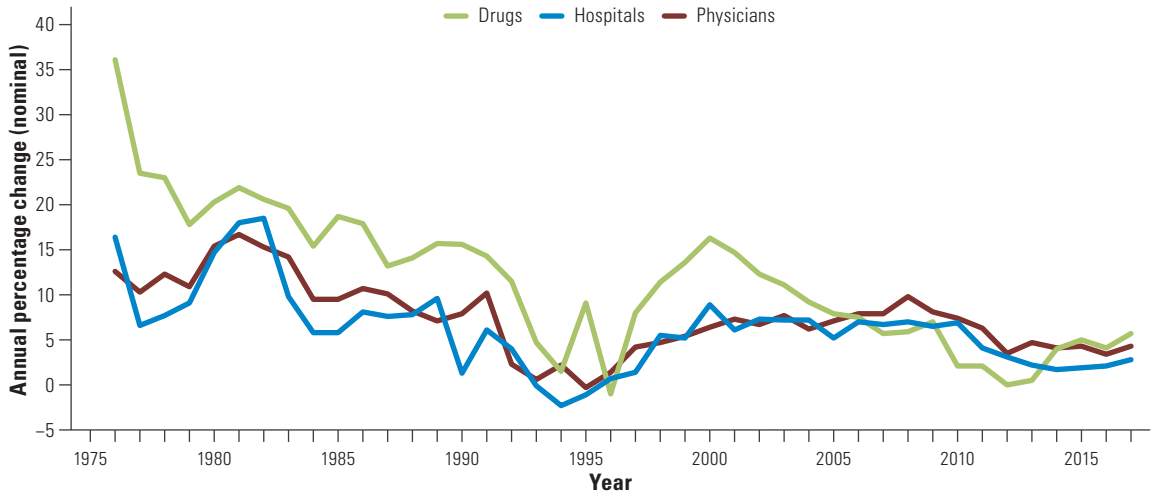
for improvement. New governance arrangements at the group or regional levels are needed but are insufficient in themselves. The additional features embodied in the Patient's Medical Home are essential for advancing primary care. Going even further, full population registration, greater availability of alternate payment arrangements, active participation of physicians in healthcare administration and support for meaningful measurement and feedback loops are among the changes required to transform Canadian medicare.

Marchildon and Sherar (2018) lament that the "once-sterling reputation of the Canadian medicare system has been increasingly tarnished" and seem to suggest that some of the blame lies at the feet of physicians and their medical associations. They argue that physicians are paid too much relative to others and have too little accountability. They say a lack of accountability between primary care organizations and physicians, for example, makes it difficult to "offer a coordinated continuum of service, implement electronic health records and improve quality of care and patient flow." However, these improvements depend on many system factors unrelated to physician accountability. As an example, about three-quarters of primary care physicians use electronic medical records, but very few use them to review data proactively or send patient reminders (Canada Health Infoway 2016). Physicians are often keen to use electronic medical records to improve care but have repeatedly noted barriers outside of their control (Greiver 2015; Greiver et al. 2016; Kiran 2018).

When discussing physician compensation, Marchildon and Sherar leave out important context and, as they acknowledge, rely on poor data. Their first figure suggests that there has been a steadily increasing growth rate in physician expenditure compared to a plateauing in hospital and drug expenditure. However, they present data only from 1998 to 2008. The data from 1975 to 2017 tell a different story (Figure 1). The growth in physician spending decreased during the 1980s and early 1990s, with the trend reversing in the mid-1990s. The amount Canada spends on physicians as a proportion of total health spending is about the same now as it was in 1975 (CIHI 2017) (Figure 2). Marchildon and Sherar then describe the tense negotiations between the Ontario Medical Association and the Government of Ontario. They describe the physicians voting down a tentative agreement but do not mention physician resentment of unilateral cuts imposed by government as a swaying factor.

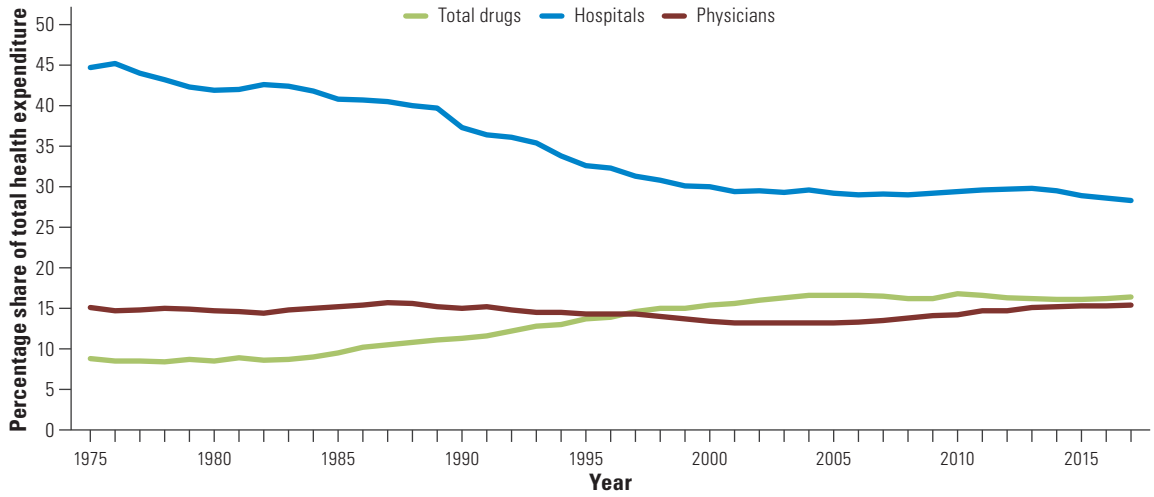
Marchildon and Sherar present physician remuneration data comparing Canada with other Organisation for Economic Co-operation and Development (OECD) countries, but the comparisons crucially leave out the US. They acknowledge the gap in data but do not acknowledge the strong influence of physician remuneration in the US. The US is our closest neighbour, and physicians can easily move to the south to practise. Available data suggest that average pay is higher for many physicians in the US compared to Canada (Laugesen and Glied 2011). Marchildon and Sherar then compare gross and net physician earnings by province. However, more complete data from Ontario provide very different estimates of gross and net physician income (Henry et al. 2012; Petch et al. 2012). For example, Marchildon and Sherar report average gross general practitioner (GP) earnings of $230K in 2015–2016, whereas other reports have estimated average gross GP earnings of $300K in 2009–2010 (Henry et al. 2012; Petch et al. 2012). These discrepancies highlight the need for more accurate data on physician remuneration.

Figure 1. Annual percentage change in spending per year, 1975–2017



Note: Data for 2016 and 2017 are forecasts.

Figure 2. Percentage distribution of total health expenditure by use of funds, Canada, 1975–2017



Note: Data for 2016 and 2017 are forecasts.

Marchildon and Sherar describe Canadian efforts to reform primary care and note limited progress in implementing team-based care and critique how it has been implemented. We were surprised that they question whether "GPs are willing and able to coordinate the care of their patients beyond referrals involving specialists and diagnostic testing." In 2011, The College of Family Physicians of Canada released a vision for the Patient's Medical Home (CFPC 2011). The vision clearly describes how family physicians should play a central role in coordinating a comprehensive basket of services. Timely access, rostering, team-based care and blended payments are all components of a medical home mode. Emerging evidence from Canada suggests that being cared for by a family physician practising in a team setting is associated with improved diabetes care (Kiran et al. 2015) and better outcomes following hospital discharge (Riverin et al. 2017). Many family physicians across Canada are keen to adopt the Patient's Medical Home, but, in some cases, government has restricted expansion (Grant 2017).

Marchildon and Sherar are right in saying

… most high-performing health systems are not based in fee for service …

that physicians have little accountability for managing health system resources and that their decisions influence other cost drivers. However, physicians do have accountability – they are accountable to the patients they care for. Physician training and professional self-regulation reinforce our duty to individual patients. Physicians advocate for their patients, and partly for this reason, patients have trust in their physician. Not infrequently, our role as health system stewards is in tension with our duty to do what is best for the patient in front of us. Even in the absence of further accountability, governments can help us be more effective health system stewards, for example, by specifying criteria for ordering expensive tests (Fine et al. 2017) or what drugs are on the provincial formulary (Taglione et al. 2017). We need to find ways to maintain physicians' role as patient advocates while providing them with increasing opportunity to be accountable for health system resources.

The conclusion of the essay notes that "new forms of accountability tied to performance should be the focus," yet the essay provides few specific examples of how that might work or which forms of accountability might be considered. Based on the experience of other jurisdictions, we propose a number of steps that could be taken to improve the performance of Canadian medicare, many of which address system issues that go beyond physician accountability. Our main focus is on primary care physicians, but some of these steps could also apply to specialists.

Primary care is meant to be the first point of contact with the healthcare system, yet not every Canadian has a primary care provider, leaving important gaps in care. High-performing jurisdictions around the world ensure that every permanent resident is associated with a primary care provider or group (OECD and European Observatory on Health Systems and Policies 2017a, 2017b; Pesec et al. 2017), and we would recommend the same for Canadian jurisdictions as a starting point for improving Canadian medicare. This corresponds to the principle of "tight rostering" raised in the essay but goes beyond that to ensure full population coverage. We would further suggest that the care fragmentation inherent in walk-in clinics and emergency departments be addressed by aligning those services with local primary care groups that are responsible for their defined populations and in ensuring informational continuity to the patient's provider. A single electronic health record accessible to patients and providers would greatly help in those efforts. That would mean that no person or primary care provider is left behind (Kiran et al. 2016).

We further note that most high-performing health systems are not based in fee for service but rather in salaried arrangements or blended capitation, reinforcing the changes in primary care physician remuneration raised in the essay. Those alternate payments are also a key component of the Medical Home in the US (Patient Centered Primary Care Collaborative 2007) and Canada (CFPC 2011). Alternate payments readily accommodate the proactive care of defined practice populations, are more easily aligned with population and health system needs and are more able to free up physician time for quality improvement activities, interaction with team members and use of enhanced patient communications such as secure e-mail and videoconferencing (Bodenheimer et al. 2014; Institute of Medicine [US] Committee on Quality of Health Care in America 2001; Schroeder and Frist 2013). They can also

provide the employment benefits such as sick leave and pension plans that many physicians would greatly appreciate and also have been associated with greater work satisfaction (CFHI 2010; Green et al. 2009). Fee-for-service reimbursement also greatly limits physicians from engaging in health system leadership as those positions are often voluntary or paid less than the value of seeing patients.

Performance measurement is essential for improvement, yet in relation to other countries, few Canadian physicians receive feedback about the care they provide or use their own electronic records for quality improvement (Commonwealth Fund 2016). Vast amounts have been spent by both governments and physicians on electronic medical records, which in most cases serve as typed patient charts but provide little other value (Clark 2016). Unlocking the data in those records at the practice and system levels holds great promise for improvement yet is absent from most government priorities. Similarly, patient experience and patient-reported outcomes are rarely collected in primary care practices or by health systems. Compiling meaningful measures from patient surveys, electronic medical records and health system data is feasible in Canadian primary care settings (Health Quality Ontario 2018) but needs the support and investment to scale and spread across the entire sector. We see roles for professional organizations, health quality agencies and governments in ensuring that practice-level data are readily available and used for practice improvement.

Apart from those in salaried arrangements, few physicians have formal accountability with any group or organization. As Marchildon and Sherar (2018) note, a lack of alignment of priorities and decision-making can contribute to dissatisfaction and inefficient care at the hospital or system level. Given the value of autonomy to physicians, we propose that accountability arrangements be physician led and voluntary. Those arrangements could be at the group or regional level, and accountability could be to local health authorities, ministries of health, quality improvement organizations or physician-led third parties. Better patient care and quality improvement would be at the core of those arrangements and the supports for measurement and improvement activities would be the draw for physicians to participate. Those arrangements, could further involve local specialists, other health sectors and social services, so they serve to enhance rather than impede integration and equity. Physicians would have the opportunity to gain leadership skills and contribute to healthcare administration at senior levels (Serio and Epperly 2006; Steyer 2009). Full population coverage by primary care would enable practice and system improvements to reach everyone.

We agree that payments and governance are crucial ingredients for improving Canadian medicare. We would go further in recommending full population registration in primary care, much greater availability of alternate payment arrangements, more participation of physicians in senior management and leadership positions, especially in primary care, support for meaningful measurement and feedback loops and voluntary local accountability and support arrangements. These recommendations are in the context of the Patient's Medical Home, taking into account local population needs and integration across health and social sectors.

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Improving Physician Accountability through Primary Care Reform in Alberta

COMMENTARY

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ABSTRACT

Like other Canadian provinces and territories, Alberta has been attempting to reform primary care since the mid-1990s. Although initially these efforts were focused almost exclusively on the method of payment for physicians, since 2003, the focus of government policy has broadened to include other aspects of practice, including governance and accountability, improved continuity, the use of a team-based approach and the use of electronic information systems. Although significant progress has been made, Alberta continues to face challenges.

Alberta has been attempting to reform primary care since the mid-1990s. Initially, the policy conversation focused almost exclusively on the method of payment, particularly

the voluntary shift from fee-for-service (FFS) to capitation payment. The rationale for this focus was a perceived potential to achieve significant cost savings, an important issue as the province's costs for family medicine consults are almost one-third greater than the Canadian average (Duckett 2015). As a result of research and experiential learning (policy learning), the conversation evolved to encompass a range of possible payment options beyond FFS, currently referred to as Alternative Relationship Plans (ARPs) (Alberta Health 2018d; AMA 2016; Church and Smith 2013). However, despite these significant efforts to shift physician method of payment away from FFS, to date relatively little progress has been made. In 2015–2016, Alberta had the lowest percentage among all provinces of total physician payments (clinical) delivered through ARPs (13.2%) and has been consistently well below the Canadian average over the past 15 years (CIHI 2016b).

Failure to realize the expected cost savings and emerging intergovernmental policy agreements between federal, provincial and territorial governments have shifted the conversation to a broader range of potential policy instruments. In 2003, Alberta Health launched an eight-year primary care initiative to improve access to primary care in collaboration with health regions and the Alberta Medical Association (AMA). The central aspect of this initiative was the creation of 41 primary care networks (PCNs) involving 3,800 physicians (approximately 80% of all family physicians)[1] and 1,000 full-time-equivalent additional healthcare providers. These networks provide services to approximately 3.5 million Albertans (70% of the population) (Alberta 2012; Alberta Health 2016a: 3; Spenceley et al. 2013: 6).[2]

A PCN is a joint business venture between Alberta Health Services (AHS)[3] and a group of family physicians (either co-located or not) that is funded by Alberta Health. The governance structure comprises physicians and AHS representatives, whereas physicians control the daily clinical operations. Currently, PCNs receive $62 per patient per year from Alberta Health and use the majority of these funds for patient care delivered by nurses and allied healthcare providers. Physician compensation is distinct from PCN funding and is primarily FFS.

The four key objectives of PCNs are:

- Accountable and effective governance – Establish clear and effective governance roles, structures and processes that support shared accountability and the evolution of primary healthcare delivery.
- Strong partnerships and transitions of care – Coordinate, integrate and partner with health services and other social services across the continuum of care.
- Health needs of the community and population – Plan service delivery on high-quality assessments of the community's needs through community engagement and assessment of appropriate evidence.
- Patient's Medical Home – Implement the Patient's Medical Home to ensure that Albertans have access to the right services through the establishment of interdisciplinary teams that provide comprehensive primary care (Alberta Health 2016a).

PCNs are required to submit three-year business plans to Alberta Health as well as regular financial reporting and progress toward achieving stated objectives and meeting the needs of the community through the services provided. AHS works collaboratively with PCNs in the development of the business plans. Alberta Health reviews this information for general financial accountability and program and policy compliance (Alberta Health 2016a: 18).

In 2014, Alberta introduced a primary healthcare strategy (including continued PCN funding) that established three strategic directions: enhancing the delivery of care, bringing about cultural change and establishing building blocks for changes. Embedded within this is the notion that all Albertans should be attached to a primary care home (Patient's Medical Home or Health Home) that has a focus on wellness, prevention and chronic disease management. Clinics are expected to provide improved access through longer hours of services and care provided by multidisciplinary teams. Shared governance with local community members, improved information systems and physician payment mechanisms are also part of the strategy (Alberta Health 2014a). In 2016, Alberta Health added two additional strategic directions: population needs-based design and increased value and return on investment (Alberta Health 2016b).

Challenges and Response

Since 2009, several external reviews by the Health Quality Council of Alberta, the provincial auditor general and Alberta Health have highlighted a number of challenges faced by evolving PCNs. These challenges and the responses from Alberta Health, AHS and PCNs are discussed below.

> *Physician compensation and PCN funding are not dependent on demonstration of the cost-effectiveness or quality of the services provided.*

Structural alignment and accountability

There has been a lack of clarity from Alberta Health about expectations and targets for PCN program objectives and how these contribute to overall healthcare system goals (Alberta 2012, 2017: 33–37). In response to these concerns, Alberta implemented a new PCN Governance framework in 2017 that is intended to: (1) improve integration between PCN services, AHS programs and services provided by community-based organizations; (2) align services across communities through zone-wide[4] service planning and (3) share administrative services across the zone, leading to more PCN resources applied to direct patient care (Alberta Health 2018f).

A key feature of the governance model is the creation of zone PCN committees that bring AHS operational leaders together with PCN physician leaders to jointly develop and implement service plans. There is also a provincial PCN committee that advises the minister of health on key matters related to PCNs and primary healthcare in Alberta. These changes strengthen the structural alignment between PCNs and AHS and should lead to greater accountability for making improvements in priority areas.

Individually, physician performance is evaluated by the College of Physicians and Surgeons of Alberta through the Physician Achievement Review Program (PAR). This review involves a general assessment by survey and feedback and, more recently, a more intensive on-site competency assessment of a sample of practices (College of Physicians and Surgeons of Alberta 2016).

Physician compensation and PCN funding are not dependent on demonstration of the cost-effectiveness or quality of the services provided. In particular, physicians as "stewards" of the public healthcare system direct the use of many diagnostic and treatment resources. However, Alberta Health has admitted that "it has limited ability to manage how physicians consume resources"(Alberta 2017: 26). In essence, physicians who make numerous decisions related to referral, diagnostics and treatment that account for a significant portion of AHS expenditures are

not held accountable for the financial impact of those decisions[5] (Alberta 2017; Health Quality Council of Alberta 2014: 8).

Currently, the provincial PCN committee is examining the funding model to ensure that PCNs promote team-based care and are accountable for the services provided. Alberta also has a demonstration project under way to implement a blended capitation compensation model for family physicians (Alberta Health 2018c, 2018f).

> *… an integrated information system supports performance management and quality assurance.*

Health information infrastructure

Although Alberta is often seen as a leader in e-health, progress toward a fully integrated health information infrastructure has been slow. The Alberta government had spent more than $800 million on electronic medical records (EMRs) by 2014. Despite the investment made to date, several EMRs used by family physicians and over 1,300 stand-alone clinical information systems (CISs) used by AHS remain. Many are either outdated or not interoperable. Significant parts of the system still rely on paper-based information management (Health Quality Council of Alberta 2016: 5–6).

A well-integrated health information system serves two important functions. First, efficient and effective management of diagnostic test results is crucial to ensuring continuity and quality of care. Second, an integrated information system supports performance management and quality assurance. Although much of the information required to evaluate physician performance is collected by the department, the College or AHS, the information is generally not shared among the three organizations, nor is it shared with individual physicians for quality improvement purposes (Alberta 2017: 39; Health Quality Council of Alberta 2016: 10).

Despite these challenges, Alberta has successfully linked 50+ provincially held databases. This information system, presently known as Netcare, is mainly used by physicians, laboratories and pharmacies and includes the following types of information: personal demographic information, hospital visits, surgeries, immunizations, laboratory test results, diagnostic images, medication information and allergies (Alberta Health 2018a).

In addition, the Physician Office System Program (POSP), a tripartite initiative of the province, the AMA and the health regions (now AHS), spearheaded the adoption of EMRs in physician offices. POSP ran in several phases, beginning in 2001, and was credited with bringing Alberta physicians to the forefront in Canada for the use of EMRs, with 70% uptake achieved by 2012–2013 (Alberta Health 2014b; OECD 2012).

Most recently, the province committed an additional $400 million in 2017 to health information infrastructure over the next five years. This funding will facilitate implementation of Connect Care, a single clinical information system that will replace the 1,300 systems currently used across AHS. Implementation is scheduled to begin in 2019 and is expected to roll out across the province over the next several years. Family physicians who do not currently use an AHS system will then have access to patient and physician portals, which will enable e-referrals, viewing of patient information and exchange of secure messages with patients and other providers. A community information integration initiative is under way to link community EMRs with Netcare and Connect Care. The ultimate goal is to create a common electronic health information platform across the province,

including a single patient record that can be accessed by healthcare providers and patients from anywhere in the province (Alberta Health 2018b, 2018c; Gerein 2017).

Continuity of care

Although there are pockets of excellence in the province (Huddes 2018), management of patient transitions between acute care, specialists and community care (especially for patients with complex needs) continues to be a challenge. Having a paper-based approach and several electronic referral systems is "problematic and ultimately does not support or protect Albertans' continuity of care" (Health Quality Council of Alberta 2016: 9). Most physicians do not proactively monitor the health status of their patients between visits, nor is there effective sharing and use of clinical information (Alberta 2017; Alberta Health 2018a).

Approximately 70% of PCN physicians have established or are actively working to establish patient panels,[6] which are an essential foundation of relational continuity between physicians and their patients (Health Quality Council of Alberta 2016; Top Optimized Practice 2017). This lags somewhat behind the original performance target of 80%, set in 2014 (AMA 2014). The 30% who are not currently developing panels may include smaller practices in rural areas with less PCN support or practices that are not yet convinced of the value of participating.

Empanelment will be further supported through a central patient attachment registry (CPAR), operational in 2019, which is a centralized database that will capture the attachment of primary care physicians and their paneled patients. In addition, the Health Quality Council of Alberta provides standardized reports that use administrative health data to provide information about physician panels. It includes measures related to patient demographics, health conditions, selected aspects of patient management and health system utilization (Bahler 2018; Health Quality Council of Alberta 2018).

To facilitate informational and management continuity, e-referral and specialist advice capability are embedded in Alberta Netcare. In Calgary, Specialist Link allows family physicians and specialists to connect via telephone. Several other electronic referral systems are also being tested by other organizations in the healthcare system (Alberta Health 2018a).

In spite of these advances in continuity, access to after-hours care continues to be problematic. Although Alberta physicians are contractually required to provide after-hours care, a 2016 survey by the Alberta College of Physicians and Surgeons found that less than 30% of physicians were doing so. Approximately 30% of PCNs provide extended hours coverage (24/7), and approximately 50% provide after-hours coverage (evenings and weekends). This admittedly underestimates the extent of after-hours access, as many primary care physicians in rural locations also staff emergency departments. To address this access issue, the College issued new guidelines requiring physicians to either collaborate with their colleagues to ensure after-hours coverage or contract with a service provider to ensure that after-hours coverage is available (Gerein 2016; Yourex-West 2015).

About 75% of PCNs are measuring the time to the third next available appointment and using these data to facilitate improved access for Albertans, although this information is not currently publicly available.

> *"Alberta physicians are contractually required to provide after-hours care . . .*

Interprofessional primary care teams

Although PCNs were envisioned to facilitate integration and continuity of care through interdisciplinary teams, there has been little incentive to develop these teams. The funding provided to PCNs may be insufficient to support the development of multidisciplinary teams (Theman 2016). However, a number of resources to support team development have been created (AIM Alberta 2017; Alberta 2017; Top Optimized Practice 2017).

AIM Alberta is a quality improvement initiative meant to enable healthcare teams to achieve their potential. AIM works with PCNs to co-design approaches that support building capacity and capability for medical home implementation among member practices. The training offered by AIM in quality improvement methods, enhanced access, team-based care, panel and continuity is integral to achieving the best outcomes for patients, providers and staff. Patients Collaborating with Teams (PaCT) is an initiative designed to improve care planning for patients with complex health needs and to promote the creation of co-developed patient-centric care plans (AIM Alberta 2017; Alberta Health 2018b).

Conclusion

Having achieved limited success in convincing physicians to adopt alternative methods of payment to FFS, Alberta has increasingly shifted its focus to reforming major aspects of governance, organization of practice and information infrastructure to improve accountability, access and continuity of care. Although several recent external reviews have identified significant challenges, current policy responses hold significant promise to achieve a more integrated healthcare system overall with increased access and continuity of care. As to whether or not Alberta has achieved value for money with the highest paid primary care providers in the country,[7] the most recent comparative information suggests that on some indicators, Alberta is performing above the Canadian average and on some it is performing below (CIHI 2014, 2015). Although it continues to underperform in terms of converting physicians to alternative payment mechanisms, Alberta continues to incrementally reform primary care based on a mix of policy instruments that are acceptable within its provincial policy context.

Notes

1. The exceptions are walk-in clinics, hospitalists and those who have focused their practice in a specialized area.
2. Other models of primary care include: family care clinics, community health centres, urgent care centres, home care, population and public health and addictions and mental health.
3. AHS is the single, integrated health authority governance structure that replaced the nine health regions in the province in 2008.
4. AHS is subdivided into five administrative and clinical zones.
5. Physicians have countered that they have not been provided with the relevant cost information.
6. Patients formally registered with a physician practice.
7. It is important to note that Alberta's GDP is the highest in Canada and well above the Canadian average, so how much physicians are paid is relative to this broader economic context.

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From Autonomous Gatekeepers to System Stewards: Can the Alberta Agreement Change the Role of Physicians in Canadian Medicare?

COMMENTARY

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ABSTRACT

Marchildon and Sherar's (2018) "Doctors and Canadian Medicare" presents a specific dilemma for healthcare reform: the ability of physicians to negotiate ever-increasing incomes without reference to the consequences to healthcare costs or provincial budgeting. This commentary situates that discussion in the broader debate of the challenges to healthcare reform as exemplified by studies such as Paradigm Freeze *(Lazar et al. 2013) and the ability of provincial medical associations to act as both system insiders (gatekeepers) and outsiders (with no responsibility for system finances). The resolution to this dilemma may be to follow the lead of the Alberta government by negotiating a stewardship role for physicians that requires them to take broader governmental goals into account. There is evidence to suggest that physicians may be the best actors to insist on and enforce changes in physician behaviour. Furthermore, adding physicians as stewards of the system may help create better checks and balances in the currently dysfunctional dynamics between federal and provincial stewards.*

Introduction

In 2013, I was part of a team of health policy researchers behind the book *Paradigm Freeze*: *Why It Is so Hard to Reform Health-Care Policy in Canada* (Lazar et al. 2013). That volume, and a series of related journal publications (Church and Smith 2006, 2008; McIntosh and Ducie 2009; McIntosh et al. 2010; Pomey et al. 2010), examined the barriers to health system reform in five provinces through detailed qualitative analyses of six different healthcare reform decisions. The resulting 30 case studies painted a picture of provincial healthcare systems generally stymied in their capacity to effect real change.

One of the notable barriers to reform we pointed to was the capacity of provincial medical associations, as the representatives of the physician workforce, to stymie attempts to move the system in directions not deemed to be in the interest, especially the financial interest, of physicians. Lead editor Harvey Lazar noted that some of this capacity lies in the fact that physician remuneration was never really integrated into the healthcare system itself. Doctors negotiated their fee schedule with the government (i.e., the health department) and not with those who managed and governed the healthcare system itself. This was especially evident when the majority of the provinces created regionalized health system governance structures. In no province did the regions, although charged with the coordination, organization and delivery of physician services to their citizens, have control over the physician budget. As Lazar wrote:

> … almost every commission and task force that proposed regionalization of healthcare delivery insisted that the regional authorities should be responsible for medical budgets. Governments knew that medical associations would strongly oppose the transferring of medical budgets to regional authorities. They therefore chose to ignore these proposals and the idea disappeared as an issue (Lazar 2013: 11).

In the lead essay to this volume, Marchildon and Sherar (2018) amplify this issue as it relates to both its impact on physician remuneration (it is rising faster than other aspects of health expenditure) and the role of the physician in the system. From the moment that the Saskatoon Agreement created a model for Canadian medicare that would preserve the (virtually) complete autonomy of the medical profession (Marchildon 2016), provincial medical associations moved to situate the profession both inside and outside the healthcare system.

They are inside insofar as they remain the primary gatekeeper to the access of services for citizens. For the most part, no one gets into the system without a general practitioner's consent, and once inside, there is little movement across or through the system without a specialist's consent. But those same physicians remain outside the system insofar as they negotiate their remuneration not with the managers of the healthcare system but directly with the government. No other healthcare actor is afforded such independence from the traditional modes of governance and accountability.

The Lack of Accountability

For Marchildon and Sherar (2018), this has had specific and problematic consequences. In the first instance, it has allowed physicians to negotiate increases in remuneration that far outpace the average growth in other sectors. This is regardless of whether physicians are on a traditional fee-for-service (FFS) payment plan or some alternative arrangement. Indeed, increases in FFS payments translate into increases in alternative payment plan remuneration because to encourage

physicians to move off of FFS, those alternative plans must remain competitive. So even as alternative payment plans become more common, FFS schedules drive the increase in physician remuneration.

The competition for doctors between provinces also drives up the cost of physician services and, they argue, has a degree of "stickiness" that puts pressure on lower-income provinces to compete with wealthier jurisdictions. In times of economic stress, this only complicates the situation for provinces that find themselves locked into expensive funding agreements with their physician workforce. This, then, explains how physician compensation accounts for 53% of the growth in public health expenditures even as the growth rates of other cost drivers, such as hospitals and drugs, have declined (CIHI 2011; Marchildon and Sherar 2018: 1).

But the concern is more than just the cost of physician services. Rather, it is the fact that the system for negotiating physician remuneration is essentially divorced from the entire governance and accountability structures of the healthcare system in each province. Physicians' autonomy within the system shields them from having any accountability for the overall fiscal health of the system or whether the cost of the system (including their own remuneration) is in any way tied to the quality of care or improved health outcomes.

This, then, is the systemic contradiction that Canadian medicare has lived with since the Saskatoon Agreement in 1962 (Marchildon 2016). Physicians are the gatekeepers for provincial health systems and exercise significant power within the system to thwart initiatives they deem contrary to their interests (Archibald and Jeffs 2004; Lazar et al. 2013). But they are not linked into the accountability and governance regimes of those systems in a way that would make them in any way responsible for the overall performance of the system either financially or in terms of quality of outcomes. To put it bluntly, when it comes to concerns about the systems' costs, whether there is value for the money spent or the overall quality of the care provided, physicians have plausible deniability. They are there to deliver services, not count beans.

In their conclusion, Marchildon and Sherar assert that the question of rising physician remuneration and "cost control in the public interest cannot be separated from the question of governance and accountability" but also note that "there is no simple payment reform that will magically produce higher quality and more timely care" (2018: 14). And that is the challenge because there is no immediate incentive on the part of the physicians to change that set of relations that perpetuates the separation of remuneration and effective cost control rooted in the governance and accountability regimes in each province.

So what will get doctors (and doctors' remuneration) linked into the accountability and governance of the system? On the one hand, the answer is simple and implied in Marchildon and Sherar's concluding remarks. Doctors have to be convinced to take on a different role, a role currently played almost exclusively by the systems' funders – that of steward. On the other hand, the question of how to do this is left unanswered. But the actions of one provincial government might give us a pathway to doing just this.

The Alberta Agreement

In 2016, the Government of Alberta, the Alberta Medical Association (AMA) and Alberta Health Services (AHS) agreed to a series of amendments to their master agreement that would draw physicians into a greater governance role in the system and thus put some of the accountability for the system's management and outcomes on the profession (Alberta 2016a). The key amendments,

ratified in late 2016 by the membership of the AMA, included:

- A needs-based physician resource plan that will help place doctors in the communities that need them.
- Primary care improvements, including new information technology and data sharing.
- New compensation models for some primary care physicians, as well as academic physicians, to reward time and quality of care given to patients rather than just the number of services provided.
- New physician peer review and accountability mechanisms.
- The linking of certain benefits and compensation increases to performance on other cost-saving measures (Alberta 2016b).

This agreement marks the first attempt by a Canadian government to incorporate physicians into a stewardship role in a provincial health system, one that would provide them with both benefits and responsibilities linked to the fiscal health of the system and to improving the health outcomes of the population. In effect, it is asking physicians to take on a role in bending the cost curve in exchange for a say in the organization and governance of the system. And the Alberta agreement hits some of those key areas where doctors can help lead doctors into changing their behaviour: the distribution of physician resources across the province to address rural physician shortages, the design of compensation models that reward quality of care and peer review of physician billing practices.

The master agreement to which these amendments applied expired in 2018, and the government and the AMA reached a tentative agreement on a new master agreement in April 2018, which hopes to build on the progress made under the 2016 changes. In the words of the AMA, "Building on the innovations of the 2016 Amending Agreement, the tentative agreement addresses budgetary concerns of the province while recognizing the contributions and stewardship of physicians so far" (AMA 2018). What remains unclear from available news reports is just how much progress was made and whether the agreement came anywhere close to the hoped-for $500M in savings. One might presume that there was some progress insofar as both parties have agreed to proceed further down this path, but that is only supposition.

But there is evidence to suggest that this is a potentially quite fruitful path that is worth exploring. Widespread in the literature around policy change is the notion that policy "entrepreneurs" or "champions" can be crucial for the implementation of new policy directions or new ways of doing things (Kingdon [1984] 2011; Lazar et al. 2013; Meijerink and Huitema 2010; Mintrom and Vergari 1996; Roberts and King 1991). One or two crucially placed advocates for change (either inside or outside of government) can make all the difference in whether a change in policy direction or different way of doing things not only gets implemented but also gets implemented appropriately or as intended. If those inside the policy process and those impacted by the change trust the champions, the level of resistance to change will fall.

A similar phenomenon is true within the medical profession. Doctors who believe in the necessity of changing physician behaviour for the overall health of the health system may be the ones best placed to lead other doctors through those changes. One of the case studies undertaken for the *Paradigm Freeze* project involved provincial attempts to manage wait times. In Saskatchewan, this meant the uptake of the results of the Western Canada Wait List Project into the Saskatchewan Surgical Care Network, which involved consolidating existing wait-lists and applying standardized scoring to determine a patient's place on that list based on the severity of need.

Interviews involving key actors in the system and key representatives of stakeholders affected by the change pointed to two reasons for the initiative's initial success. First was the presence of champions inside Saskatchewan Health that could push the bureaucracy to adopt the changes. Second was the oversight provided by physicians willing to enforce the new rules on their colleagues and potentially sanction those who tried to game the system (McIntosh et al. 2007). In short, doctors will respond to attempts to change their behaviour when those changes are "demanded" or enforced by their fellow doctors.

And this is a key component to the notion of physicians moving away from being just the gatekeepers of the system and toward a stewardship role. As gatekeepers, physicians are able to regulate both access to the system and travel through the system based solely on medical judgment. Although they might recognize that some of their decisions – inappropriate prescription of antibiotics or needless duplication of diagnostic tests – resulted in excess and/or inappropriate spending, there was neither a willingness nor a capacity to take action that might be deemed an infringement on an individual physician's autonomy. But as stewards, they are, in fact, forced to take account of other considerations from other actors (and other stewards) in the system.

> *The federal government has all too often mistaken its stewardship role … for a right to unilaterally impose change.*

Conclusions and Caveats

Encouraging more provinces to follow Alberta's lead and offer a stewardship role to physicians can have a couple of potentially important benefits to the overall process of healthcare reform. First, to return to the kind of concerns raised by Marchildon and Sherar (2018), a stewardship role for physicians may be a path to bending the cost curve when it comes to physician remuneration. If doctors can exchange a level of input into the allocation of the system's resources for a willingness to push back against bad billing practices and inappropriate service delivery from their colleagues, then that can help link physician remuneration to improving the quality of care provided to citizens.

Second, the extension of a stewardship role to physicians might alter the currently dysfunctional stewardship relationships between the federal and provincial governments. And provincial governments have too often abandoned their stewardship role in favour of buying peace within the system by ever-increasing health spending, which they often then demand be met with increased federal transfers. In such a situation, the cost drivers are left unattended.

In asking doctors to play a role in changing the behaviour of their fellows, provincial governments are also adding a voice that can demand that governments (both provincial and federal) also live up to the goals of their stewardship role. And they are adding a voice into the stewardship environment that carries a great deal of public support – citizens trust health professionals, and that will add heft to their stewardship role.

All of this, it must be admitted, is entirely speculative at this point. And it relies on the belief that what is happening in Alberta will both bend the cost curve and contribute to improved quality outcomes. We still do not know what overall impact the Alberta model has had or to what extent doctors have bought in to the new role they are expected to play.

And one cannot deny that what Alberta is attempting to do challenges some fundamental aspects of physician culture and

training in Canada. Physicians, like most health professionals, have little experience in and pay little attention to the overarching intergovernmental dynamics around healthcare financing and governance. The internecine warfare between provinces and the federal government over the financial health of medicare takes place on battlefields far removed from where physicians practice. So the expectation that they might insert themselves into those battles is asking them to add a role for which they will need real training to understand.

Furthermore, doctors, as they themselves will admit, are not trained as fiscal managers and are not taught to keep an eye on the cost of the procedures they do, the tests they order or the drugs they prescribe. Their self-defined role is the provision of care according to their medical judgment. Indeed, it runs quite counter to their training to include cost in making medical decisions. Thus, if this stewardship role is to be at all effective, it has to be framed in a manner that focuses as much on the "quality" of care as on the cost. Redundant tests and the overprescription of antibiotics are not just costly to the system, they are also barriers to quality improvement and, in fact, bad medicine.

In that respect, there may be some lessons to be learned from Ontario's *Excellent Care for All Act* (2010), which mandated quality improvement plans (QIPs) in all hospitals and linked quality outcomes to executive remuneration. Although the Ontario legislation does not focus directly on physicians or have implications for physician remuneration, it has proven to be an effective means of putting "quality" and patient-centredness front and centre in the discussion of how resources are allocated (Kutty et al. 2012).

In the end, Marchildon and Sherar (2018) are right that there is no magic funding model that will move us from the current situation to one where the cost curve of physician remuneration is bending downward. But there are possible processes and options that could begin to alter that insider/outsider position that was bestowed on physicians in the Saskatoon Agreement. The agreements between the AMA and the Government of Alberta are well worth keeping an eye on and certainly call out for a more intense study. Expanding the stewardship of the system to include physicians (and maybe even other health professionals) and insisting that the stewards provide checks and balances on each other might be a way to begin to thaw a paradigm that has been frozen for far too long.

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Canada's Ailing Healthcare System: It's the Doctors' Fault?

COMMENTARY

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ABSTRACT

The Marchildon and Sherar (2018) paper provides some useful insights: the role of primary care, improved approaches to physician compensation and the importance of accountability and governance. But their approach of focusing on doctors, including their compensation, misses the boat. Canada's healthcare system needs a major overhaul to improve integration and reward good performance for patient care going beyond medical practitioner compensation.

THE PAPER BY Marchildon and Sherar (2018) argues that physician compensation has accelerated faster than healthcare costs in the past two decades in Canada. They argue that this is indicative of poor performance; they then suggest several reforms to physician compensation and accountability between health payers/administrators so that Canada's healthcare system will perform better. Although I completely agree with Marchildon and Sherar that governance and accountability are significant issues, I am not convinced it is the "doctors' fault" alone.

Healthcare reform is needed, but physician salaries are a symptom, not a cause. Besides, compensation depends on a host of factors, including competitiveness with US physician salaries that cannot be ignored. It is not how much we pay doctors – this can depend on market forces – but the structure of compensation that matters.

In the next section, I provide some statistics on Canada's health system performance in recent years, updating some of the information in Marchildon and Sherar (2018). In the following section, I suggest that the endemic problems with Canada's healthcare performance require reforms that go well beyond doctor compensation. Even if physician compensation is reformed, it is important to maintain incentives for work and service, which requires payment schemes that go beyond salaries and capitation (payments per enrolled patient).

It is far from clear that Canada's unique approach … is successful given that it ranks poorly below most others.

Canada's Unsatisfactory Healthcare System Performance

Although one should be careful with ranking measures (that depend on the weighting and measurement of factors, for example), the Commonwealth Fund provides one of the most detailed analyses of healthcare systems (Schneider et al. 2017). Owing to space limitations, I do not provide a detailed analysis of each category in this report; for more information, see Schneider et al. (2017). According to the study, Canada's ranking is ninth of 11 countries (better only than France and the US[1]). Although Canada is middling in terms of administrative efficiency and care process, it does poorly in access (second lowest), equity (third lowest) and healthcare outcomes (third lowest) categories.

The top three countries in healthcare performance are the UK, Australia and the Netherlands. Each has a quite different approach to administering the health system. It is far from clear that Canada's unique approach – single-payer system for physician and hospital services only – is successful given that it ranks poorly below most others.

It is also obvious that spending is little associated with performance. The US spends more per capita on healthcare than any other country in the world at $9,892 but has the lowest level of performance (Table 1). In 2016, Canadians spent $4,783 per capita ($US purchasing power parity)[2] on public and private healthcare, more than the UK, one of the best-performing health systems, at $4,192. Canada also spends somewhat more than the Organisation for Economic Co-operation and Development (OECD) average at $4,003 per capita on healthcare in 2016 even though Canada has a below-average performance.

In recent years, the growth in real per capita public spending in most OECD countries has slowed down after the financial crisis of 2008 (some of the data in Marchildon and Sherar (2018) go up to 2009, missing the deceleration in costs afterwards). Adjusting for inflation, the growth in US per capita public health spending dropped from 3.4% (2001–2010) to 2.4% (2011–2016), with even more dramatic reduction in the UK (3.3–1.0%) and Canada (3.2–1.1%) in corresponding periods. Budgetary problems may have pushed governments to curtail healthcare spending, but several reforms took place that improved efficiency.

Whether the deceleration in costs will be long lasting is unclear. If it reflects better management without impairing the quality of services, then some of the concerns about physician compensation and other cost drivers become less important.

Two other points should be noted in relation to Table 1: (1) many factors play a role in escalating costs besides physician salaries and (2) competitive pressures are important to Canada. Therefore, a focus on US comparisons is more critical to Canada than with other OECD countries.

US costs have escalated tremendously because of three general factors: high compensation for doctors, high pharmaceutical costs and high administrative costs. As shown in Table 2, US physician compensation costs are roughly a third more than Canada's or the UK's, in part because of the much higher ratio of specialists to total physicians in the US.[3] Per capita pharmaceutical spending in the US is the highest of any country. And it has been calculated that US spending on governance and administrative costs is five percentage points of GDP more than the average of other OECD countries (Papanicolas et al. 2018). Canada's governance and administrative costs are far less (but somewhat higher than the UK). Pharmaceutical costs in Canada have declined in real per capita terms since 2009 and are well below those of the US.[2] The availability of doctors per 1,000 population differs little among the three countries, although the US has far more nurses than most countries. As one cost driver, Canada has more nurses per capita than the UK (as well as the OECD average of 9.0). Head counts, however, are insufficient to measure actual hours spent by doctors, which can vary by country.

Although the US system is not one to emulate in terms of performance and cost, it is an important constraint for Canadian public policy. US cost pressures impact Canada, particularly when physicians decide to move to the US to take advantage of a more supportive market for their services and after-tax income. Other OECD physician salaries are less relevant.

In my view, Marchildon and Sherar (2018) did not pay not enough attention to the influence of American competitiveness on Canadian physician salaries (Freeman et al. 2016). In public policy, Canada might shoot for the moon but often lands in the US. During the 1990s, a significant spike occurred with doctors moving to the US, partly because of provincial limitations in hiring and training doctors but also because of depreciating Canadian dollar and higher personal tax rates.[3] After 2000, the brain drain reversed as more doctors were trained in Canada, the Canadian dollar moved to parity with the US and personal tax rates fell.

Table 1. Spending statistics for Canada, the US and the UK

	The Commonwealth Fund ranking, of 11	Real growth in per capita public health spending, 2001–2010	Real growth in per capita public health spending, 2011–2016	Per capita health spending, 2016 ($US PPP)
Canada	9	3.2%	1.1%	$4,753
US	11	3.6%	2.4%	$9,892
UK	1	3.3%	1.0%	$4,192

PPP = purchasing power parity. Source: OECD 2017; Statistics Canada 2018.

Table 2. Some cost drivers for healthcare

	General physician compensation, 2016* ($US)	Pharmaceutical spending per capita 2016 ($US PPP)**	Physicians per 1,000 pop.** (2015)	Nurses per 1,000 pop.** (2015)
Canada	$146,286	$756	2.7	9.9
US	$218,173	$1,162	2.6	11.3
UK	$134,671	$497	2.8	7.9

Pop. = population; PPP = purchasing power parity. *Papanicolas et al. 2018. **OECD 2017.

Since 2014, the Canadian dollar has depreciated to less than 80 cents (US) and personal income taxes have risen once again, with an average top rate of 53% on incomes roughly in excess of $200,000 compared to over US$400,000 in the US. With strong US growth and 2018 US tax reform that has lowered the top rate to roughly 44% on incomes above US$500,000, pressures will mount again to raise physician salaries.

So we have a conundrum. Canada is not a big spender like the US, but our healthcare system performs better. On the other hand, Canada spends more than other countries but with poorer performance. Although physician salaries are higher in Canada than in other OECD countries, they are much less than in the US – US trends put pressure on Canadian salaries for mobile medical providers.

Improving Healthcare: The Role of Accountability

As Marchildon and Sherar (2018) correctly point out, accountability and governance are significant issues for Canada's healthcare system. The question is whether fixing compensation structures for physicians should be the primary focus. Here, I disagree.

The lack of governance accountability is manifold in Canada:

- The provincial governments are largely responsible for administering the healthcare system. Besides certain administrative limitations attached to funding under the *Canada Health Act*, the federal role narrowly focuses on First Nations health, prisons, territories, drug regulation and research. Accountability often breaks down for voters because provinces blame the federal government for a lack of funding and the federal government pins responsibility on the provinces for administration. Accountability to voters is lost because it is unclear which level of government is ultimately responsible for healthcare.
- As Marchildon and Sherar (2018) correctly point out, there is a lack of legal and financial accountability between doctors and health authorities.
- Little governance or accountability arises between institutions funded by medicare and those that are not funded by medicare.
- Little accountability arises for healthcare providers to patients given that patients get services free and have few mechanisms to improve service by choosing alternative providers.

As the Advisory Panel on Health Care Innovation (2015), of which I was a member, argued, Canada's healthcare system lacks several important features: integration with workforce modernization, patient engagement and empowerment, technological development with scaling up, better value for procurement, reimbursement and regulation and effective engagement of industry as an economic driver. In the panel's view:

> One observation that has been made repeatedly is that Canada's approach to the finance and organization of health services is very poorly integrated … As one example of poor integration, physicians and hospitals are funded through separate budgets in Canadian healthcare systems. This makes little sense for the majority of specialists, given the substantial influence they have over hospital expenditures. Indeed, under the current fee-for-service payment system, most of these superbly-trained professionals have no specific financial rewards for quality of care or responsible stewardship of scarce healthcare resources.

> The lack of integration of healthcare services also reinforces Canada's narrow scope of public coverage, and vice versa. Provinces and territories are justifiably uneasy about the cost implications of adding on more budgetary silos to pay other professionals for needed care or to assume full financial responsibility for covering pharmaceuticals, even though careful spending on these goods and services could more than offset other costs in fully integrated budgets.

For example, a different type of reform, following approaches to education in Edmonton, Alberta,[4] would be to empower primary health organizations, including hospitals, specialists and general practitioners, clinics and other health services, such as home care, long-term care and dental services (similar in concept to having many Kaiser Permanentes within the public system). Each would compete for resources by attracting patients, being rewarded by public authorities not just for enrolment but also for quality of care. If an organization loses its attractiveness for patients and becomes financially strained, the province would replace the organization's leadership.

Health organizations and physicians should in part be funded by payments as a reward for good performance …

Integration would be partly but not wholly facilitated by building stronger primary care networks and giving family physicians more authority to purchase services from other suppliers, as in the case of the UK National Health Service. More would be required, such as more integration of medicare and non-medicare services, a better delineation of responsibilities among governments and more empowerment given to patients to seek quality care.

Thus, the primary care reforms to improve accountability suggested by Marchildon and Sherar (2018) are in the right direction to achieve better integration but miss the mark in some areas. Issues are involved, such as what can be achieved in rural sectors as opposed to urban populations, where competition is more possible. Nonetheless, as discussed in a recent McKinsey report, competition among providers can succeed with less specialized services and where doctors can be pressured in performing better if patients have an opportunity to access competing services, as in Denmark (Dash and Meredith 2010).

In Canada, the approach to public funding is problematic as some services are fully covered by the government and others are not. A more integrated approach is needed for all health services, which would be funded by both public and private resources. A new approach bringing competition among health organizations and better incentives for better patient-centred care would also be helpful. Also important would be an opportunity for patients to provide feedback to a director or care manager, which could result in a group losing funding when patients shift to other providers.

Although Marchildon and Sherar (2018) believe that moving to physician payments based on alternative payment systems rather than fee for service would improve the quality of healthcare services, I am less convinced. Health organizations and physicians should in part be funded by payments as a reward for good performance, such as accessibility, quality, effective stewardship of resources and teamwork. This requires measuring performance and developing appropriate statistics.

The problem of fee for service and salaries is that the provincial authority is billed without regard to the patient's experience. Those who are unhappy with the quality of

service exert little pressure on the healthcare system to improve performance. Moving to only a rostering system whereby physicians are only compensated by the number of patients encourages doctors to unload more time-expensive patients. Some form of incentive is required to encourage doctors to take on the more demanding patients, including bonuses.

Performance can be improved in two ways: monetary incentives and promotion within organizations. Within a public bureaucracy, promotion is the most important reward for good performance because individual performance and outcomes are often difficult to measure given ministerial responsibility and politics, which can impact these measures. With independent health provider organizations or teams earning their own compensation, however, rewards can be based on performance, such as waiting times and patient outcomes. Fee for service and alternative compensation schemes would be needed to improve performance if compensation is outcome based rather than simply related to the number of services or patients on a roster.

Conclusion

The Marchildon and Sherar (2018) paper provides some useful insights: the role of primary care, improved approaches to physician compensation and the importance of accountability and governance. However, their approach of focusing on doctors and their compensation in my view misses the boat. Canada's healthcare system needs a major overhaul to improve integration and reward good performance for patient care. This goes beyond physician compensation and primary care, requiring reform of the *Canada Health Act* to enable more flexibility for integration of healthcare services and funding than what is currently in place.

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Notes

1. In 2014, Canada was 10th highest; France dropped in the 2017 ranking not because of any major change in the health system but as a result of changes to health outcome metrics.
2. Pharmaceutical cost growth has slowed down significantly in Canada in part because of various reforms, including generic policies adopted in Ontario. The growth in real per capita pharmaceutical expenditures was 1.8% in the US, –0.2% in Canada and –0.5% in OECD countries during 2009–2015. Canada might see a further reduction in cost pressures with further potential reforms (OECD 2017: 187).
3. Federal and provincial personal income tax rates fell after 2000, and physicians and other professionals were allowed to incorporate, enabling them to take advantage of the low small business corporate income tax rate (Freeman 2016). However, the paper does not discuss the role of the exchange rate in influencing salary levels.
4. The Edmonton public school system improved the quality of education by treating principals as CEOs who had more flexibility to choose program and administrative staffing but were responsible for budgets. Students could attend any school in Edmonton, thereby introducing competition for the whole city. A similar notion of network healthcare organizations is suggested by Leatt and colleagues in a 1996 paper in the *Canadian Medical Association Journal* (Leatt et al. 1996).

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Building on Primary Care Reforms and Indigenous Self-Determination in the Northwest Territories: Physician Accountability and Performance in Context

COMMENTARY

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ABSTRACT

This commentary responds to Marchildon and Sherar's (2018) paper, "Doctors and Canadian Medicare: Improving Accountability and Performance," in which they explore questions around governance and physician accountability in Canada. This response situates the issues raised in a northern context by sharing experiences with primary care reform in the Northwest Territories and exploring the implications these changes have had for physician accountability and reported system improvements. Physician leadership and accountability are further explored in the northern context, where health systems for Indigenous communities include multiple jurisdictions and transitions in governance advance the self-government, land claims and treaty rights of Indigenous peoples.

In their commentary, "Doctors and Canadian Medicare: Improving Accountability and Performance," Marchildon and Sherar (2018) call on stakeholders to move the dialogue beyond physician payment and suggest instead that we address health

system sustainability challenges by posing questions related to governance, accountability, service expectations and performance. The Northwest Territories (NWT) provides a unique organizational and policy context that has been driven by primary care reforms over the last decade and a governance context that represents Indigenous systems for health. This paper reflects on the territorial context to explore options for a platform where physician performance and accountability may be negotiated.

The NWT is a rich and culturally diverse region where traditional knowledge, experience, skills, language, interconnections with the land and resource care have all contributed to the health of local people for generations (Moffitt and Mercer 2015). In the NWT, 52% of the population identifies as Indigenous; this includes 21,160 people (Statistics Canada 2016a). The NWT recognizes 11 official languages, of which nine are Indigenous of the language families Dene, Cree and Inuit. The total population of 44,381 is spread over 33 communities, of which only 17 have road access. The impact of colonization and resulting intergenerational traumas have resulted in health disparities for many Indigenous peoples in the region. Health services are currently undergoing reform, with eight health authorities being amalgamated into a single one. There are also a number of self-determined wellness initiatives that are reviving traditional and Indigenous peoples-based health services and practices.

Overall, healthcare spending in the NWT is higher than in provincial jurisdictions. In 2014, the per capita health expenditure in current dollars was $12,791 in the NWT, just over double Canada's average of $6,069 (CIHI 2017). Per capita spending on physicians is 1.3 times higher, at $1,144.10, as opposed to $887.70 in the rest of Canada (Young et al. 2016). According to data gathered in the Canadian Community Health Survey (CCHS), despite higher per capita spending on physicians, the proportion of the population that has access to a doctor was lower in the NWT than in Canada as a whole. In particular, Indigenous peoples who live in rural and remote regions cannot always access medical services when and where needed (Romanow 2002).

A full analysis of physician payment in relation to performance in the NWT is an elusive task because of system data gaps within the territory and the lack of comparable data at the national level. Certainly, there are primary care reforms that merit some analysis. There has been promising progress and unique practices in primary care that align with the common elements of primary care reform that were highlighted by Marchildon and Sherar (2018). These include NWT innovations in physician remuneration, rostering of patients, after-hours primary care, effective use of electronic medical records (EMRs), interprofessional team-based models and structural alignment of health system structures to ensure the effective integration of primary care providers (Peckham et al. 2018).

Physician payment schemes in the NWT were changed from fee for service to salary in 2000. This move was made primarily to improve physician retention in the NWT. The Yellowknife Health and Social Services board assumed the overhead and operating costs of the city's four medical clinics, and the doctors were offered contracts with salaries and benefits (Sibbald 2000). As a result of the NWT Medical Association's (NWTMA) contract negotiations, members have benefits such as parental leave, extended health coverage, CME and CMPA reimbursements, vacation time, special leave, signing and retention bonuses and a pension plan (CMA n.d.). As of 2017, just short of 100% of physicians (less one) are salaried. Amounts for physician remuneration are negotiated between the medical association and the territorial

government; physicians are then contracted by the territorial health authority.

The primary care clinics that are based in Yellowknife have introduced medical team-based care that places patients on a roster. In remote regions, patients are also rostered, not as a matter of policy but occuring naturally, according to geography; there is a single clinic in any given community that provides a primary care team consisting of nurse practitioners, community health representatives and, in some cases, midwives. Other members of the interdisciplinary team (physicians, occupational therapists, mental health service providers, etc.) are reached through teleconsulting, through community visits or by medivac to transport patients to services outside the community. All remote community-based clinics provide 24/7 on-call services, and in Yellowknife, primary care services available evenings and weekends.

> *There has been definite progress in primary care reform in the NWT, and there are unique lessons and achievements …*

Family physicians play a significant role in primary care coordination in the NWT. They coordinate not only specialist referrals and diagnostic testing but also referrals to home care, long-term care and health services provided by nurse practitioners and midwives in remote communities. Specialty-trained family physicians in the NWT also provide services based in the tertiary hospital, including emergency services, anesthesia, obstetrics and general surgery.

Finally, there have been great strides in the roll-out and implementation of EMRs in the NWT. Currently, there is 90% coverage in the area that can been seen in 500 points of care. Success has been ascribed to the 2005 decision to adopt a single EMR system, which was possible as physicians were by then salaried and the health authority could direct what system would be used (Webster 2017).

There has been definite progress in primary care reform in the NWT, and there are unique lessons and achievements in relation to systems reform and performance stemming from the salaried environment and the new accountability mechanisms, which have been in place since 2000. Unfortunately, the lack of comparable data and resources dedicated to indicator development perpetuates an environment where there is no complete systems lens, and it is not possible to fully evaluate the impact of these reforms and guide opportunities to expand innovations in areas, such as digital technologies, that would improve access in response to remote geographies. In 2010–2011, the Office of the Auditor General (OAG) recommended that the Government of the Northwest Territories (GNWT) develop a set of system-wide performance indicators for the health and social system, and the GNWT responded with the creation of a performance measurement framework that continues to mature (GNWT and Department of Health and Human Services 2015). The development of score cards for the health authority and more in-depth analysis of patient experiences would provide tools to guide management and the ongoing implementation and adjustments of primary care reforms.

Despite advancements in primary care reform in the NWT, inequities in health outcomes and access to care persist for Indigenous peoples in the NWT. According to the CCHS, access to physician services for non-Indigenous peoples in the NWT is 74%, which is similar to access for other Canadians,

at 79.9%. However, for Inuit and First Nations, the percentage who have access to physician services falls to 59%, and for Métis, 67.4% (Statistics Canada 2016b). In response to these systemic inequities, various medical forums have made commitments to closing gaps in Indigenous health outcomes and improving systems performance for Indigenous communities. National physician groups have turned their attention to issues around Indigenous values, cultural safety and activities that improve the experience of healthcare for Indigenous peoples (Scott et al. 2014). In July 2015, the Assembly of First Nations adopted a resolution calling on the Canadian Medical Association (CMA) to support the Truth and Reconciliation Commission of Canada's (TRC) health recommendations. Recently, delegates of the CMA General Council adopted four resolutions supporting collaborative activity to improve healthcare for Indigenous peoples (CMA 2016).

One specific TRC call to action requires consideration in the dialogue on physician accountability and performance: "We call upon the federal, provincial, territorial, and Aboriginal governments to acknowledge that the current state of Aboriginal health in Canada is a direct result of previous Canadian government policies, including residential schools, and to recognize and implement the health-care rights of Aboriginal people as identified in international law, constitutional law, and under the Treaties" (TRC 2015). The CMA policy on the health of Aboriginal peoples appears to respond to this call where it states that "physicians have an additional role in advocating, in partnership with Aboriginal peoples, for improvements to their health and social conditions, and in facilitating the empowerment of individuals and communities to control their own health care" (CMA 2002).

> *… performance measures must take into account a number of jurisdictions, programs and services that expand beyond medicare.*

Canadian physicians have significant autonomy within the current healthcare system, and this puts them in a strong position for such facilitation and partnership. The CMA policy directive is thought provoking and warrants further discussion. Although the national directive does not directly transfer to provincial or territorial medical associations, where their role is to negotiate with provincial and territorial governments, they should take the national directive into account as they consider how physicians might advocate for Indigenous control of healthcare within a provincial/territorial negotiation. I will not propose a plan for how physicians might operationalize this directive, but the discussion is an important one to have with Indigenous leaders as physician leaders explore ways of empowering Indigenous governments to control their own healthcare.

If we are going to discuss physician accountability and performance in relation to *Indigenous* health services in the North, there are a couple of policy challenges to consider. First, performance measures must take into account a number of jurisdictions, programs and services that expand beyond medicare. Second, if we are talking about accountability for Indigenous health systems, then where does the responsibility lie?

Lavoie (2013) explored the patchwork of jurisdictions beyond medicare that are related to Indigenous health services. She undertook a national review of Indigenous peoples-specific provisions entrenched in national, territorial or provincial legislation and policy documents; a review of treaties and self-government

agreements and a review of Aboriginal organizations' mandates. She found that "a number of intersecting federal, provincial and territorial legislation, policies and authorities with shifting and blurred responsibilities contribute to ambiguities and gaps" (Lavoie 2013). In the NWT, these intersections are prevalent, and despite the lack of clarity regarding governance and accountability in some instances, the stewards of the respective jurisdictions deserve some form of participation in the dialogues that take into account physician accountability and performance in the systems providing care for Indigenous peoples.

> *How medical services will interact with the provision of traditional medicines in the NWT has not yet been determined …*

The OAG recognized that although at times interactions are tenuous, the modern relationship between Indigenous peoples and the Government of Canada has been defined by the principles of reconciliation and rebuilding. As the former auditor general Sheila Fraser stated, "It has been the policy of governments to encourage First Nations to move toward greater autonomy and self-government" (Fraser 2006). This commitment has been reinforced through Canada's signature to the *United Nations Declaration on the Rights of Indigenous Peoples,* which recognizes the rights of Indigenous peoples to govern themselves and, specific to healthcare, to have access to their traditional medicines and health practices (UN General Assembly 2007). The GNWT, Department of Health and Social Services, has made a commitment to action on Indigenous health that is grounded in reconciliation. Key actions are captured in the report *Building a Culturally Respectful Health and Social Services System*. In the commitment, the GNWT calls for greater use of traditional healing and traditional practices in concert with Western medicine (GNWT 2016). How medical services will interact with the provision of traditional medicines in the NWT has not yet been determined and will require partnerships that support co-management governance approaches and policy development.

Responsibilities and therein accountability for Indigenous health are not always agreed upon. The final report of the Romanow Commission, *The Future of Health Care in Canada*, captures these conflicting views, noting that confusion about constitutional responsibilities for Aboriginal healthcare results in a mix of services provided by federal provincial and/or territorial governments and services provided by Indigenous communities and governments (Romanow 2002). The federal government has described its responsibilities as voluntary; it considers itself the "payer of last resort." Indigenous groups do not share this view and instead link the federal programs to treaty obligations and the trustee role of the federal government. Further background on this position and recommendations for federal, provincial and territorial governments that would be consistent with their jurisdictional responsibilities can be found in the final report of the Royal Commission on Aboriginal People (Canada 2006).

This level of engagement in health services planning is only just emerging through tripartite agreements that are present in some regions. Where the provincial, territorial and/or federal governmental tables are expanding to include Indigenous governments – which have established modern treaties with responsibilities for health – the dialogue with medical associations on performance and accountability in an Indigenous context will take a new form. The diverse oversight of healthcare

services for Indigenous peoples and the transitional state of Indigenous governance and self-determination must be taken into account when considering the need for full participation in discussions around physician accountability and performance.

Full engagement will only strengthen the existing primary care reforms and the ongoing dialogue on physician accountability and performance. Meaningful engagement can guide good governance and improvements to health systems, services and, ultimately, health outcomes for Indigenous communities. In a speech, Dr. Lafontaine, the collaborative team lead at Indigenous Health Alliance, reminds us that Indigenous leadership is articulating problems and solutions in new ways and is enhancing our understanding of the health rights that First Nations have from living in Canada and the unique treaty rights First Nations have as founding nations of Canada (Lafontaine 2017). If grounded in reconciliation, this work, which reshapes the fabric of accountability and performance, can create a platform for new partnerships, innovations and solutions that are informed by the strengths of Indigenous communities and physician leaders.

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Measuring Physicians' Incomes with a Focus on Canadian-Controlled Private Corporations

COMMENTARY

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ABSTRACT

Understanding physician remuneration and its growth is extremely complex, much more so than for a typical worker. Highlighting one narrow aspect of this issue, this paper focuses on governments' increased incentives for physicians to incorporate and the ensuing physician response in the period 1996–2011. Nationally, incorporation rates increased for both general practitioners and specialists between 1996 and 2011. We observe that the largest changes in provincial regulation were in Ontario, and incorporation increased from 18% in 2001 to 54% five years later. Incorporation is less common in Quebec, where the incentives were the weakest. Married male physicians, middle-aged physicians (regardless of sex), physicians with higher incomes and physicians born outside of Canada are all more likely to incorporate their practices. On average, incorporated physicians realized a 4% reduction in personal income taxes and accumulated retained earnings of at least $10,000 per annum in their Canadian-controlled private corporations in our data period. The benefits of

incorporation stem largely from retained earnings and income splitting. Many physicians benefit from one or both; however, the benefits of incorporation are not equally distributed. Sex, marital status and income affect the magnitude of the financial benefit of incorporation.

Introduction

The high rate of growth of physician payments and improved physician integration into Canada's healthcare governance are key issues for Canadian medicare, as discussed by Marchildon and Sherar (2018). In casual discussion, Canadian medicare is sometimes referred to as a "healthcare system," but it would probably be better referred to as a "payment system" that happens to pay for healthcare. There is, of course, a world of difference between these two. Marchildon and Sherar argue for bringing medicare, the practice of medicine and the broader set of activities associated with healthcare delivery closer together. They further argue that healthcare costs, especially physician costs, are rising quickly – excessively so – outpacing income growth in other sectors (even after taking population aging and the like into account). Improved governance, that is, the construction of a healthcare delivery system with both patient and provider accountability that is greater and more efficient than the existing healthcare payment system, together with increased attention to the rate of growth of payments, is argued to be the way forward. This is a daunting task for which there has not been, to this point, much political will.

At the moment, it is not even clear that we can measure physicians' take-home income. Although some provinces transparently disclose the gross physician income they pay, there is, of course, an appreciable gap between take-home pay and gross billings/payments by provincial governments.

As is well understood, most physicians are not employees who are paid a salary but rather independent contractors, who are sometimes incorporated as Canadian-controlled private corporations (CCPCs) and who bill provincial ministries of health (i.e., taxpayers) for services provided. From these billings, they must pay the costs of operating their practices, which introduces a sometimes appreciable gap between net and gross revenue. Moreover, earnings comparisons with employees have the added difficulty that most physicians must also pay their own benefits – including pensions, maternity leave, dental insurance premiums and the like. Even beyond this, as self-employed workers, their tax treatment differs from that of employees. For example, dental premiums paid by employers for their employees are paid out of pre-tax dollars, whereas similar premiums paid by self-employed workers are eligible for the medical expense tax credit. Although these two tax treatments provide a certain amount of horizontal equity, they are clearly not identical.

In what follows, we focus on one aspect of post-expense post-tax physician incomes. This broad area is a central aspect of healthcare financing that we should know more about for the formulation of public policy as discussed by, for example, Leonard and Sweetman (2015). We show that an increasing number of physicians are incorporating, which has implications for their net incomes and net public costs. Of course, the tax implications of incorporation are not uniform across individual physicians, with some having greater opportunities to benefit than others.

Background: Canadian-Controlled Private Corporations

Incorporation as a CCPC implies that revenue from a physician's practice is attributed to the CCPC. The CCPC may, in turn, among

other actions, pay a salary to employees and/or dividends to owners. The decision to incorporate a physician's practice may have a significant impact on his or her wealth.

The Canadian Medical Association (CMA) and provincial medical associations have long recognized and educated Canadian physicians on the importance of structuring their practices to maximize their financial well-being (Faloon and Joule Inc. 2012). Physicians have been further incentivized to incorporate because federal and provincial governments have introduced reductions in small business tax rates and increased the amount of business income eligible for the reduced tax rate (Baron 2013). Furthermore, regulations regarding CCPC ownership eligibility fall under provincial jurisdiction and vary over time and across provinces. Of relevance, Ontario expanded the ownership rules for CCPCs in 2005, making them more similar to provinces such as British Columbia. More broadly, the conversion of medical practices to CCPCs is a growing trend in nearly every Canadian province.

Many financial benefits of incorporation can be placed into three categories:

1. Income Splitting: In the context of a CCPC, this is often referred to as "dividend sprinkling." The CCPC pays dividends to its owners, who may, beyond the physician, include a spouse (usually) and/or an adult child. This is beneficial if the non-physician owners have lower marginal tax rates than the physician. This has been somewhat curbed by: (1) the introduction of the so-called "Kiddie Tax" in 2000, whereby section 120.4 of the *Income Tax Act* eliminated the tax benefit of providing such dividends to children under 18, and, beyond our data period, (2) the recent tightening of dividend sprinkling rules in the 2018 federal budget, which in large part extended the Kiddie Tax to all ages and expanded its scope somewhat for those adults. (Budget 2018 also addressed passive investments above a threshold inside CCPCs through a reduced small business deduction and limited tax refunds for some dividends.) However, income splitting remains an attractive tax reduction strategy and is widely used by incorporated physicians. Note that income splitting/dividend sprinkling should not be confused with a CCPC hiring a family member of an owner to provide legitimate services.
2. Retained Earnings: Some earnings may not be paid out immediately but retained and invested within the CCPC. While inside the CCPC, these earnings are taxed at a small business tax rate, which is lower than the personal tax rate. The owners, therefore, have a larger pool of available funds to invest within the CCPC for eventual use. When retained earnings are eventually paid out, either as salary or dividends, these funds are then taxed in the hands of the recipient at the rate applicable for the year and form in which they are received. They may be paid out during retirement, a sabbatical or a maternity leave, when their marginal tax rate is likely lower.
3. Additional financial benefits may arise from funding personal debt through shareholder loans, the payment of after-tax expenses through the CCPC or other tax structures. These can result in lower after-tax expenses or lower personal taxes paid.

Baron (2013) provides a fuller discussion of all three types of benefits. Wolfson et al. (2016) and Wolfson and Legree (2015) use linked individual and corporate tax return data to study the prevalence of CCPCs and their effect upon income inequality. Unfortunately, tax returns provide limited demographic detail about CCPC holders and their families.

Methods and Data

Descriptive statistics and ordinary least squares regression are used to quantify various aspects of incorporation by physicians. Data are from the mandatory long-form census from 1996, 2001 and 2006 and the National Household Survey (NHS) in 2011. Income was reported for the tax year preceding the census/survey. The files, accessed through Statistics Canada's Research Data Centre at McMaster University, are organized by household, making it possible to observe the tax information of physicians and family members resident with them. All income data are inflation adjusted to 2016 using the consumer price index. Physicians in the Yukon, Northwest Territories and Nunavut are excluded because of small sample sizes.

Financial data in the 2006 census and 2011 NHS are better than those in the previous censuses. For census years 2006 and 2011, Statistics Canada was able to obtain financial data from the Canada Revenue Agency (CRA). On average, 81.8% of physicians gave permission to Statistics Canada to use CRA tax filer information, whereas the balance reported their tax information directly, as did everyone prior to 2006. We use only the more reliable financial data from 2006 and 2011 (Statistics Canada 2013a, 2013b).

Statistical analysis

We focused on physicians in private practice who work more than 20 hours per week and report total (net) income for tax purposes of less than $750,000. (Recall that this is in 2016 inflation-adjusted dollars.) This cutoff is used because it is likely that high (net)-income physicians use business structures that are more complex than for the average physician, who is below the cutoff. Only 1.5% of physicians are above this cutoff. Physicians in private practice may include physicians who are remunerated in part through salaries from sources other than their CCPC, such as academic payments. This is one reason, beyond their CCPC potentially paying them a salary, why some physicians with a CCPC receive both a salary and dividend income.

Physicians who report that they are self-employed in either incorporated or unincorporated practices are defined as being in private practice. Total income is defined as line 150 reported on the T1 return but using dividends and capital gains at their nominal value. That is, dividends are not grossed up, and capital gains are assessed at full value, not half. Of course, some physicians may be pursuing financial activities within their CCPCs that are not measured by total income.

Limitations

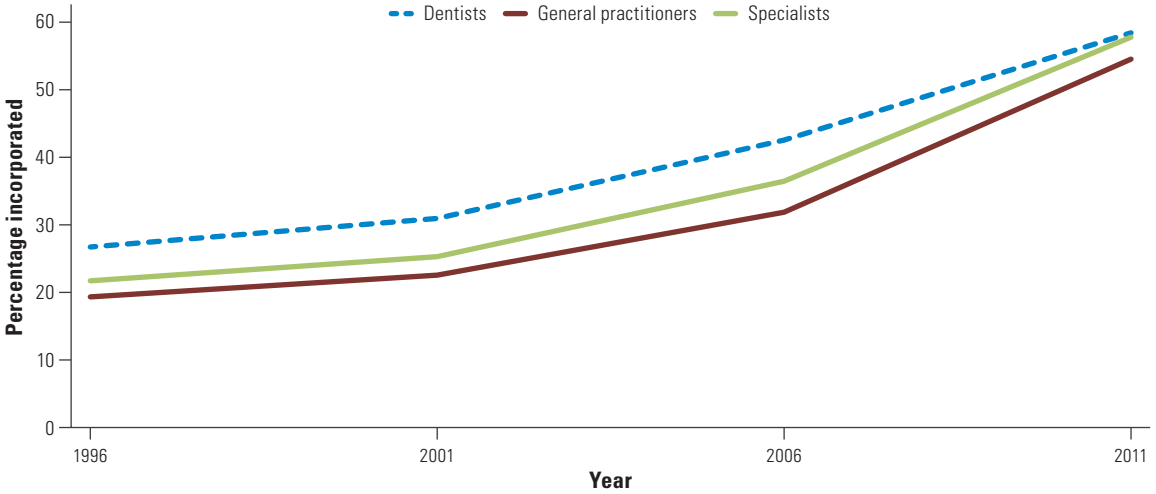
This is an observational study of the choices that physicians are making regarding incorporation. The choice to incorporate is an endogenous decision made by a physician and his/her family, although the evidence suggests that expected financial benefits are an important factor in this decision.

Prevalence of Incorporation – Provincial Differences

Figure 1 shows the incorporation rate of family physicians, specialists and (for comparison because they are also affected by these policies) dentists for census years 1996–2011. The incorporation rate for these professions has increased over this time. Specialists have a higher incorporation rate than family physicians, which is consistent with earning more and therefore having a greater financial incentive to incorporate.

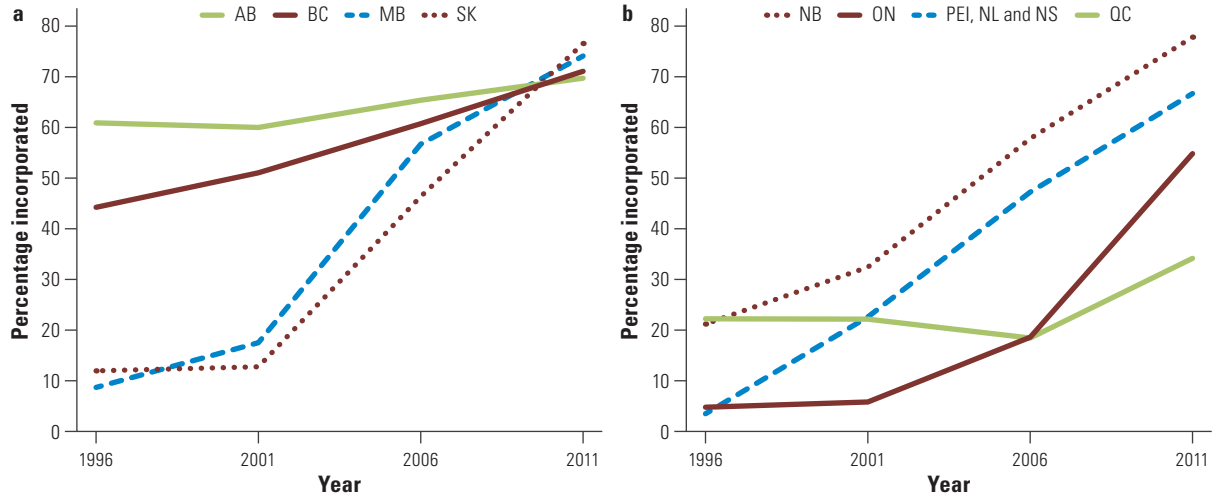
Alberta and British Columbia are the provincial leaders in terms of medical practice incorporation (Figure 2). In 1996, the incorporation rate was 44.2% in British Columbia and 60.9% in Alberta compared to 20.7% Canada-wide. Although the Alberta and British Columbia incorporation rates have steadily increased since 1996, most other provinces, except, notably, Ontario and Quebec, caught up by 2011.

Figure 1. Incorporation rates of general practitioners, specialists and dentists



Note: Physicians and dentists in private practice. Standard errors range from 0.30% to 0.51%.

Figure 2. Incorporation rates for physicians by province: a) AB, BC, MB and SK;* b) ON, NB, QC and PEI, NL and NS†



Note: General practitioners and specialists in private practice. *Standard errors range from 0.68% to 1.86%.
†Standard errors range from 0.20% to 2.07%. PE, NL and NS are grouped to meet Statistics Canada privacy policies.

Before 2006, Ontario only permitted physicians to own shares in medical practices that were CCPCs. In the 2004 negotiation between the Ontario Medical Association and the Ontario government, it was agreed that Ontario would consider changing the rules regarding CCPC ownership to bring them more in line with those of other provinces. In 2005, Ontario changed the rules and allowed persons related to the physician to hold shares. This opened the doors for income splitting between the physician, the spouse and their children. Incorporation rates in Ontario jumped after 2005, as seen in Figure 2b.

A variety of factors may make Quebec physicians less likely to incorporate. In particular, Quebec's small business tax rate is 8% compared to 2–4.5% for the other provinces (Department of Finance Canada 2013), providing smaller potential tax savings.

Prevalence of Incorporation – Sex and Marital Status

The incorporation rate for female physicians is lower than for males. Figure 3 also shows that married female physicians incorporate at about the same rate as single female physicians.

Conversely, married male physicians are much more likely to incorporate than single male physicians. It is not surprising that fewer female physicians incorporate because the financial benefit from incorporation is smaller than for males. For instance, female physicians work four hours less per week and their median incomes are $35K less than those of male physicians.[1] Also, income splitting is a useful tax strategy when the spouse has a lower marginal tax rate than the physician. The percentage of physicians with a marginal tax rate higher than their spouse's is larger for married male physicians than for married female physicians. Therefore, married female physicians are less incentivized to incorporate than married male physicians relative to their single counterparts.

Prevalence of Incorporation – Age and Place of Birth

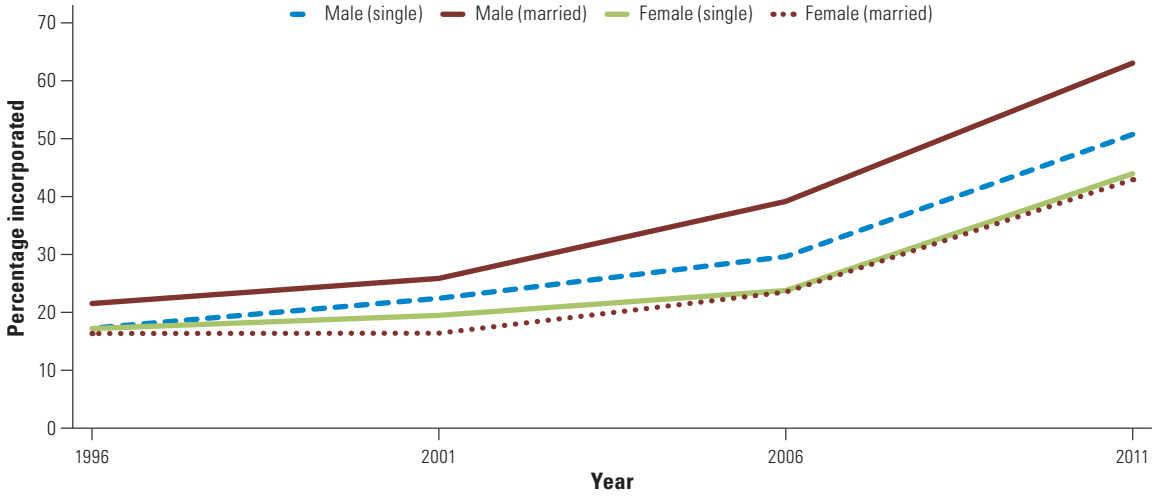
Foreign-born physicians are more likely to hold a CCPC than Canadian-born physicians (Figure 4). On average, foreign-born physicians have lower incomes than their Canadian-born counterparts and therefore should have a smaller incentive to incorporate; nonetheless, foreign-born physicians incorporate more frequently at all ages.[2] The percentage of physicians with a marginal tax rate higher than their spouse is the same for both immigration groups.[3] Therefore, foreign-born physicians are not more likely to benefit from income splitting. Foreign-born physicians may have a shorter Canadian career if they immigrate after age 30, and these physicians may want to maximize income over their shorter career. However, we see no evidence that foreign-born physicians who have late entry into private practice are incorporating at a higher rate than school-age arrivals. It is not obvious based on these variables why immigrants' incorporation rate exceeds that of Canadian-born physicians.

Figure 5 shows that the age profile of CCPC holders is an inverted U, whereas the number of CCPC holders increases over time.

Financial Gain from Incorporation in Our Data Period

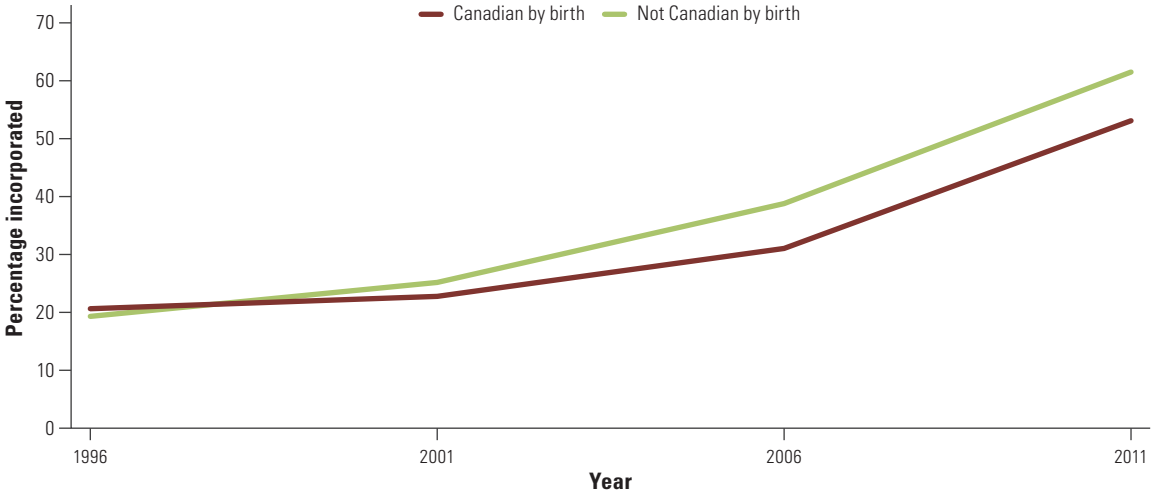
Physicians may collect remuneration in the form of salary and/or dividends from a CCPC, and other shareholder(s) – spouses or adult children – may collect dividends. (Spouses or others may collect a salary for relevant work with or without incorporation.)

Figure 3. Incorporation rates for physicians by marital status and sex



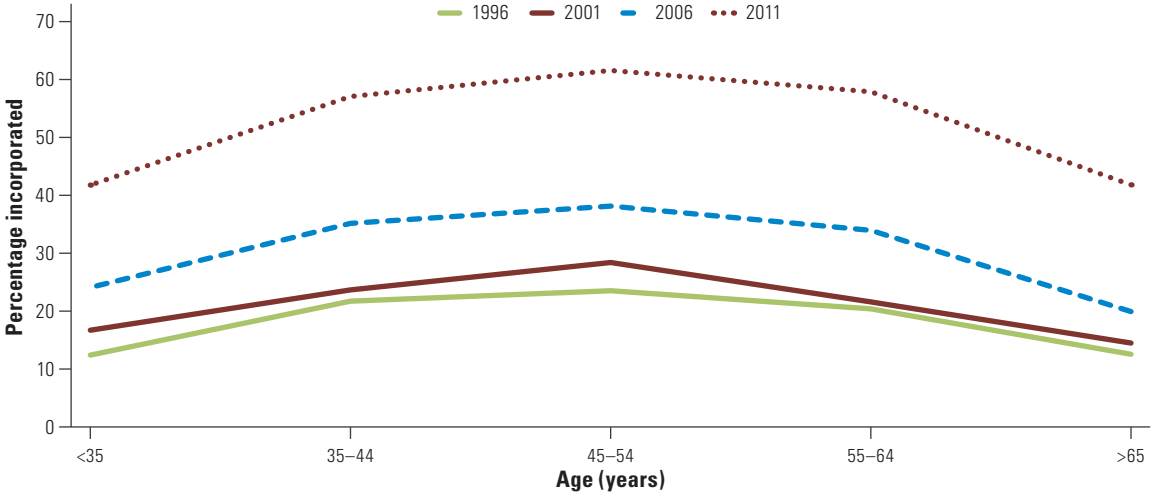
Note: General practitioners and specialists in private practice. Standard errors range from 0.30% to 1.06%.

Figure 4. Incorporation rates by citizenship at birth



Note: General practitioners and specialists in private practice. Standard errors range from 0.30% to 0.50%.

Figure 5. Incorporation rate by age



Note: General practitioners and specialists in private practice. Standard errors range from 0.42% to 1.07%.

The investment income of the spouses of physicians, which includes dividends from a CCPC and other sources, increased in inflation-adjusted terms from 2006 to 2011. Although the source of investment income is not observed, some physicians presumably split income with their spouse via CCPC dividend payments, and if the income-splitting mechanism is effective, then spousal income from investments should increase as incorporation rates rise. This effect is seen in Figure 6, which shows how the increase in incorporation rates between 2006 and 2011 resulted in equivalent increases in spousal investment income.

Table 1 compares family incomes (combined income of physician and spouse) for incorporated and unincorporated general practitioners and specialists in tax year 2010. Mean personal income tax savings for incorporated physicians are 4–5%. Actual tax saving varies by the province of residence, incomes of the physician and spouse and types of investment and other income that are received outside of the CCPC.

Figure 6. Increase in investment income as physicians incorporate (2006–2011)

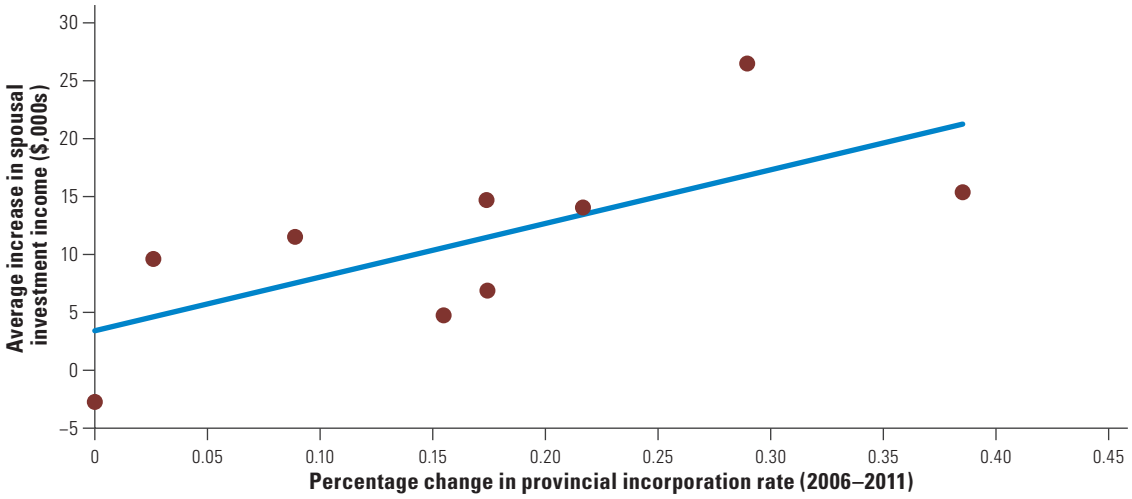


Table 1. Mean family income and taxes of physicians – Canada

	General practitioner		Specialist	
$,000s	Not incorporated	Incorporated	Not incorporated	Incorporated
Before-tax family income	$303.6	$271.8	$376.4	$344.0
Standard error	$2.0	$1.6	$3.1	$2.2
After-tax family income	$215.6	$205.4	$254.6	$250.9
Standard error	$1.3	$1.1	$1.9	$1.4
Tax rate	29.0%	24.4%	32.4%	27.1%
Tax savings		$12.3		$18.2
Retained earnings		$10.2		$13.8

All incomes reported in 2016 inflation-adjusted dollars. Includes married and single physicians. Standard errors assume zero covariance terms.

Table 1 includes a crude lower-bound estimate of mean retained earnings for incorporated general practitioners and specialists. We take as an identifying assumption that the mean before-tax CCPC income of incorporated physicians is at least as great as the before-tax income of unincorporated physicians. Because incorporated physicians work four more hours per week than unincorporated physicians, we expect our estimate of retained earnings to be a conservative minimum.[4]

Figure 7 provides an estimate of tax savings by family income for married and single physicians. Of course, the family income for a single physician is nothing but that individual physician's income. Figure 7 demonstrates that as income increases, the gain from incorporation increases and the incentive to incorporate increases. These estimates are rudimentary and apply only the approaches to tax savings discussed here; we recognize that some individuals may undertake more aggressive tax measures, whereas others may not exploit all the opportunities available.

Table 1 provides an interesting insight into family choices in determining the distribution of funds from a CCPC. Single physicians cannot usually benefit from income

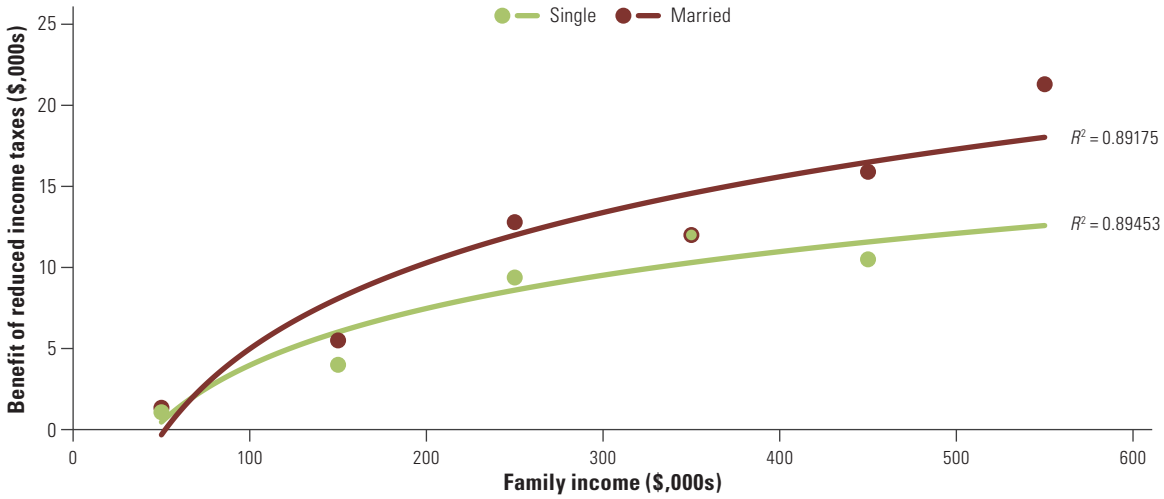
splitting, although there may be circumstances where they can income split with an adult child. Single physicians can, however, derive tax savings from other CCPC benefits. The difference in tax savings between the married and single physicians in Figure 7 can, therefore, mostly be attributed to income splitting. In general, we see that the gain of incorporation is a combination of tax savings from income splitting and the accumulation of retained earnings. Other tax benefits of incorporation might include income smoothing. In addition, more aggressive tax-saving strategies – such as shareholder loans or non-arm's length property leasing arrangements – can be beneficial to the CCPC holder.

Conclusion

Physicians are increasingly responding to financial incentives and converting their practices to CCPCs, which is making the true cost to taxpayers of physician remuneration larger than the direct payments physicians receive and also more difficult to understand. That is, in addition to direct payments such as billings for services provided, governments also provide indirect remuneration (to physicians and others) through tax expenditures. (For more information on tax expenditures, see the Canadian Federal Department of Finance's annual "Report on Federal Tax Expenditures – Concepts, Estimates and Evaluations," https://www.fin.gc.ca/purl/taxexp-eng.asp.) This is an example of only one small aspect of physician remuneration that needs to be taken into account in broad public policy debates, such as those framed by Marchildon and Sherar (2018), with additional issues raised by Leonard and Sweetman (2015). As physicians have become aware of the (mostly increasing) benefits, incorporation rates have risen in all provinces except for Quebec. Incentives to form a CCPC have increased as federal and provincial governments have changed ownership rules, reduced small business tax rates and increased the amount of income eligible for the reduced tax rate. However, they have sometimes gone in the other direction, as exemplified by the changes in the 2018 federal budget.

The average incorporated general practitioner with a family income of $272K is realizing a personal income tax reduction of 4%. In addition, we estimate an annual retained earnings benefit of at least $10K. The financial benefit increases as physician and family income increases.

Figure 7. Tax reduction benefit of incorporation



Note: General practitioners and specialists in private practice. See Appendix 1 (available at: https://www.longwoods.com/content/25572) for standard errors and before- and after-tax incomes. The two curved lines are based on Excel-generated logarithmic best-fit lines.

Although the average financial gain from a CCPC is of interest, what should also be considered is the incidence of that gain. For instance, physicians who are paid a salary cannot, in general, benefit from a CCPC. CCPCs favour married physicians with spouses, or adult children, in lower-income tax brackets who can capitalize on income splitting. Differing tax rates between provinces also matter. Lastly, tax savings, in absolute terms, are largest for higher-income physicians.

Acknowledgements

The authors would like to thank the staff at the Statistics Canada McMaster University Research Data Centre for their assistance.

Notes

1. Average hours per week were 43.3 (standard error [*SE*] = 0.17) for women and 47.2 (*SE* = 0.10) for men. Annual total income (after deductions for practice expenses) was $201.1K (*SE* = $1.2K) for women and $236.4K (*SE* = $1.0K) for men.
2. The total income for foreign-born physicians is $215.2K (*SE* = $1.3K) and for Canadian-born physicians is $231.2K (*SE* = $1.0K).
3. The percentage of foreign-born physicians with a spouse with a lower marginal tax rate is 69.7% (*SE* = 0.33%). The percentage for Canadian-born physicians is 68.8% (*SE* = 0.47%).
4. Unincorporated physicians work 43.7 hours per week (*SE* = 0.13), and incorporated physicians work 47.9 hours per week (*SE* = 0.13).

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THE AUTHORS RESPOND

Healthcare*Papers*

Value for Money through Effective Stewardship

THE AUTHORS RESPOND

Gregory P. Marchildon and Michael Sherar

ABSTRACT

The respondents all raised valuable, informative points in response to our Invited Essay. There was convergence around the need to alter governance structures at the same time as payment arrangements for physicians to achieve higher-performing health systems within Canada. At the same time, there were different views on how best to address the disconnect between levels of physician remuneration and accountability for healthcare performance and delivery. In addition to ongoing efforts to improve governance, such as the recent amendments to the government–physician agreement in Alberta, individual provincial governments can and should take the lead in initiating and evaluating further payment and governance experiments.

When we were invited by the journal's editor to write an essay that would stimulate a deeper discussion about the links between physician remuneration and health system governance, we hoped to elicit some new ideas – and perhaps even some new research. We have been gratified by the willingness of so many scholars to respond to our essay (Marchildon and Sherar 2018). They raised valuable and informative points and have pushed our thinking about this issue far more than we expected at the onset of this project. We truly appreciate the time and effort of these colleagues.

We also know that the questions of what physicians are paid, how they are paid, by whom they are paid and what they are expected to provide in return are highly polarizing issues with a long and difficult history. From the 23-day doctor's strike over medicare in Saskatchewan in 1962 and the subsequent Saskatoon Agreement that ended the strike and set the terms for the

relationship between doctors and governments, we have tended to avoid an open discussion of the issues at stake. It is often too easy to point fingers at individual actors or groups, and it was never our intention to put the blame only on doctors. As Glazier and Kiran (2018) point out, governments, too, must be held accountable for the consequences. Our point, however, is that the two most powerful actors, the state and doctors – in Laporte's (2018: 29) words, the "bilateral monopoly" – must both take responsibility for the dysfunctional situation in which we find ourselves. One consequence is that, in recent years, Canadian health system performance has declined in a number of areas relative to a number of other health systems (Mintz 2018). This should push us to question basic assumptions about physician payment, accountability and system governance.

> *… the question becomes one of how best to obtain greater value for money …*

Points of Convergence

Here are the points of consensus in the commentaries. All agree that questions of physician remuneration (how much and the manner of payment) are generally separated from the question of governance (who pays as well as the accountabilities and responsibilities between payers and payees). We have kept these two questions largely separated from the very beginning of medicare, but this has proven increasingly dysfunctional. As McIntosh (2018) puts it, this has resulted in physicians being the key health system gatekeepers on the one hand but outsiders in terms of the stewardship of those same health systems, and, again, there is a consensus that it would be far better for physicians to take on a greater stewardship role.

We agree that the issue is less about the level of remuneration than the value we as citizens and taxpayers receive for the public money expended on physician services. Of course, as we indicated and as further elaborated on in the commentaries, the data on physician remuneration, particularly when compared to those of other countries, are very poor. However, we can assume at least two facts. First, Canadian doctors earn more than the average of doctors in Organisation for Economic Co-operation and Development (OECD) countries. Second, Canadian doctors on average earn less than their US counterparts, who are among the highest paid physicians in the world (Glazier and Kiran 2018). This second fact is the more critical of the two because physician remuneration has to be competitive with that south of the border to prevent too many doctors in Canada from moving to the US (Mintz 2018). Because this geographical fact of life cannot be changed, the question becomes one of how best to obtain greater value for money, which, in turn, can be defined as ensuring more appropriate care, providing higher-quality and more responsive care and achieving better health outcomes.

Points of Divergence Where Further Analysis Is Required

None of the commentaries disagreed with the proposition that any physician payment approach is flawed if not accompanied by a degree of accountability and responsibility for results. However, there is disagreement on how best to achieve this – especially for primary care. At one end of the spectrum, would we be better off looking at the incentives created by existing payment systems rather than investing so much in new payment and primary care practice modalities and governance arrangements? Laporte (2018)

recommends more careful thought concerning the outcomes we expect from incentives and advocates more emphasis on reforming current fee-for-service (FFS) billing codes rather than trying to micro-manage doctors or creating more primary care practices based on expensive and complicated salary and capitation arrangements. Others, including McIntosh (2018) and Glazier and Kiran (2018), would argue that we have not gone far enough in moving primary care to alternative payment practices, which will inculcate greater stewardship responsibilities among doctors.

Based on the work of Clayton Christensen and his colleagues (2009), Rosenberg (2018) argues that physician work can be divided into two categories with different payment and accountability features. General practitioners, psychiatrists and neurologists are mainly in the business of figuring out the problem by drawing upon their knowledge, experience and intuition. Once the problem is known, specialist surgeons solve the problem through known surgical interventions. Based on this analysis, the first group should be paid through salary or capitation, whereas the second groups should be paid through FFS.

In fact, many doctors are no longer even paid, whether through salary or FFS, on a direct basis in Canada. They are paid through professional corporations. In their commentary, Nielsen and Sweetman (2018) examine the corporate vehicle through which a majority of doctors in Canada are now paid. A majority of doctors in Canada, both general practitioners and specialists, now receive their remuneration through Canadian-controlled private corporations (CCPCs). The more income generated, the larger the benefit in terms of net income after expenses and taxes. CCPCs increase "the true cost" of physician remuneration to taxpayers and make it "more difficult to understand" (Nielsen and Sweetman 2018: 85).

For reasons of both accountability and continuity, rostering is generally considered to be an essential part of high-performing primary care systems (Peckham et al. 2018). Rostering is generally associated with more effective primary care reform, which, in turn, is a key ingredient in improving overall health system performance (Price et al. 2015; Rudoler et al. 2015). But, as Chatwood (2018) notes, it depends on the context, and rostering is hardly necessary in remote areas, where geography imposes a de facto type of rostering. She also points out the complex intersection of federal, provincial-territorial and Indigenous governments and the impact this has on the assignment of accountability.

Recent Innovations and Suggestions on What Might Be Done Next

McIntosh (2018) argues that the 2016 amendments to the master agreement between the Government of Alberta, Alberta Health Services (the single provincial health authority) and the Alberta Medical Association is the first of its type in Canada to draw physicians into a stewardship role. The accountabilities created in this agreement include physicians assuming some responsibility for the distribution of physicians throughout the province, new physician peer review and the linking of benefits and compensation to cost savings and quality improvement. However, as pointed out by Church et al. (2018), there is some question as to whether the incentives are sufficient enough to effect the changes. As McIntosh (2018) also admits, it is too early to say whether cost savings or quality improvements have been achieved. At the same time, we will only be able to learn from this experiment if it is subjected to rigorous evaluation from the beginning.

There are other experiments that might be initiated in Canada. Perhaps a provincial

government could work with its provincial medical association to see if the Christensen et al. (2009) idea of separating remuneration into two categories has any purchase. Then, with the cooperation of the profession, it could be tested and carefully evaluated. Another provincial government might consider creating a new type of professional corporation for primary care practices that would facilitate the payment of other providers in multiprofessional teams and encourage earnings to be reinvested in key facilitators of practice, including electronic medical records. And for those physicians remaining on FFS, yet another provincial government could work with its provincial medical association in fundamentally revamping parts of the fee code, again with a rigorous evaluation of the impact of the changes on physician behaviour.

As we pointed out in our introductory essay, there is no simple solution to aligning remuneration and accountability to provide the best value for our healthcare dollars. However, we do know that the status quo is far from satisfactory, and we need to better align physician payment and overall health system governance. We also live in a federation, where it is possible for provincial governments to engage in policy experiments in a way that allows us to learn from the best results if we invest sufficiently in evaluation from the beginning. That kind of policy learning ensures that we avoid the expense of failed national reforms but gain the benefits of provincial reforms that have proven to be effective.

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